



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

Dear Crash Data Researchers/Users:

Thank you for choosing crash data from the National Highway Traffic Safety Administration (NHTSA) for your research or other use. The information contained in this motor vehicle crash report is collected, maintained and distributed in accordance with Public Law 89-564. In accordance with this Public Law, NHTSA is required not to release any case information until completion of quality control procedures. These procedures include a review of the case material to extract all names, licenses and registration numbers, non-coded interview material, non-research related researcher comments in the margins, non-factual data, and the production number portion of the vehicle identification number (VIN).

If you requested NHTSA to query its database files in order to identify a specific crash, then that query was made using non-personal descriptors you provided for use in our search. This motor vehicle crash may have been identified from a data search and matches the general, non-personal descriptors you provided, but we cannot confirm that this is the specific crash report you requested.

If you have any questions with regard to the above procedures, please contact the Field Operations Branch, Crash Investigation Division, National Center for Statistics and Analysis at 202-366-4820. Again, please be advised that we cannot confirm that this is the case that you have specifically requested nor can we certify the information to be correct.

*** *** ***



AUTO SAFETY HOTLINE
(800) 424-9393
Wash. D.C. Area 366-0123

DYNAMIC SCIENCE, INC.
In-Depth Accident Investigation

Contract Number DTNH22-94-D-27058
Case Number DSI-94-AB-020

 1995

TECHNICAL SUMMARY

CONTRACTOR: Dynamic Science, Inc.
CONTRACT NUMBER: DTNH22-94-D-27058
CASE NUMBER: Case DSI-94-AB-20

The collision occurred during the early morning hours of a fall weekday (10/19/94). The weather was clear and dry. At the point of impact, the roadway is a four-leg, asphalt intersection which is straight and level, and is controlled by standard tri-colored signals.

Vehicle 1 (the case vehicle) was a 1994 Dodge Grand Caravan SE, driven by a 37 year old female. Vehicle 1 was in southbound travel lane three approaching the intersection. Vehicle 2, a 1980 Chevrolet Malibu driven by a 26 year old female, was traveling northbound approaching the same intersection and attempted to make a left turn directly in front of Vehicle 1. The driver of Vehicle 1 stated that she attempted to avoid a collision by braking and steering right, but the front of Vehicle 1 struck the right side of Vehicle 2.

The Delta V for Vehicle 1 was computed, using EDCRASH, as 13 KPH (8 MPH). The PDOF was estimated to have been 350 degrees with a CDC of 12FYEW1. The Delta V forces in this impact exceeded the manufacturer's threshold in the Supplemental Restraint System (SRS), and the driver's and passenger's side air bags in Vehicle 1 deployed.

The driver of Vehicle 1 was not wearing the available lap/shoulder restraint. She sustained a contusion to her chest from contact with the air bag and a burn to the chest area of her dress, that she claims occurred as a result of contact with gases from the air bag. She was transported to a local hospital via ambulance where she was treated and released.

The right front occupant of Vehicle 1, the driver's 4 year old daughter, had a reported height of 104.0 cm (41.0 in) and weight of 16 kg (35 lbs.). The mother stated that the child was not wearing the available lap/shoulder restraints. When the driver of Vehicle 1 braked and steered right (see photo # 004) to avoid colliding with Vehicle 2, the brake induced deceleration caused the head and shoulders of the right front occupant to move down and forward into the instrument panel area. She possibly struck the instrument panel area somewhere around the right front side air bag module cover prior to the deployment of the air bag. This possible contact may have resulted in numerous lacerations about her face, and two avulsed teeth. The right front occupant was rebounding from the instrument panel when Vehicle 1 impacted with Vehicle 2; the air bag deployed and subsequently expanded across the child's face causing abrasions about her entire face. Due to right front occupant's forward position, she restricted the deployment of the air bag. The force of the air bag accelerated the right front occupant in a vertical direction. The left side of her head struck the front header near the windshield, and the right side sun visor. There is a 17.8 cm circular indentation

to the front header. This impact resulted in a left side open skull fracture (basilar), an AIS-4 injury, and several lacerations to the left side of her head.

The right front occupant rebounded from the vertical loading of the front header contact, and fell to rest in between both front bucket seats. She came to rest face down with her head pointing towards the front of the vehicle. The mother stated that she exited the vehicle and ran around the front of the van to open the right front door, and get the right front passenger out. The door was locked, and the mother had to run back to the left side to get the right front occupant out.

The investigator believes that the mother first reached down and placed the right front occupant on top of the right front seat before running around the van. The right front occupant bled profusely on the seat.

The right front occupant was pronounced dead on arrival at the hospital. There was only an emergency room examination of the right front occupant for the related injuries, no autopsy was performed. Vehicle 1 was inspected on [REDACTED] 1994 approximately 2½ months after the collision. The vehicle had been placed in an outside storage area, uncovered and exposed to the weather conditions. In addition, there were multiple inspections of Vehicle 1 prior to Dynamic Science's inspection. Therefore, visible contact points could not be located at the time of inspection and the occupant kinematics could not be definitely determined by the interior inspection of Vehicle 1.

The police lieutenant that was at the scene of the accident, returned a day later to inspect Vehicle 1 to see if he could find the cause of the right front occupant's fatal injury. He noted a circular indentation to the front header, but this information was not noted on the police report or reported to Dynamic Science by the police. He mentioned his findings to the family, and three weeks later a relative took photographs of the front header area. These photographs were not made available to Dynamic Science by the family's relative. Several months later, the family's attorney provided them to NTSB who provided the copies that are included in this report. The circular contact point was visible in the photographs, and determined to be the cause of the skull fracture (basilar).

The driver feels that the air bag struck the right front occupant, causing her to override the air bag and strike the windshield. She feels that the air bag striking the right front occupant is what caused her skull fracture. She was further told by the police that if the right front occupant had been belted, she would still have been struck very hard by the air bag and seriously injured.

The driver of Vehicle 1 feels that air bags are unsafe and can cause serious injuries. She wants warning labels attached to air bag equipped vehicles warning occupants of such dangers.

The rear seated ten year old female occupant of Vehicle 1 was not wearing the available lap/shoulder restraints. According to the PAR, she sustained bruises and abrasions to her leg(s). The driver and the Emergency Room Medical Report indicated she was not injured.

This research was supported by the National Highway Traffic Safety Administration (NHTSA), U.S. Department of Transportation, under contract number DTNH22-94-D-27058. The opinions, findings, and conclusions expressed in this publication are those of the authors and not necessarily those of the NHTSA.

This document is disseminated under the sponsorship of the Department of Transportation in the interest of information exchange. The United States Government assumes no liability for the contents or use thereof.

The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points be coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the pre-crash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

DYNAMIC SCIENCE, INC.
ACCIDENT INVESTIGATION
CASE NUMBER: DSI-94-AB-020

TABLE OF CONTENTS

Accident Data	1
Ambience	1
Roadway	2
Traffic Controls	3
Vehicles	4
Vehicle Damage and Velocity Estimates	5
Collision Sequence	6
Occupant Kinematics	7
Supplemental Restraint System	8
Emergency Rescue Response	9
Occupant Data	10
Injuries	12
List of Abbreviations	14
Case Supplement	15
Accident Schematic	19
Photo Index and Photos	20
Slide Index and Slides	22
Appendices:	
A. NASS Field Forms	
B. Police Accident Report	
C. Medical Records (Occupant 2)	
D. Doctor's letter, detailing occupant 2's injuries	

ACCIDENT DATA:

Location: [REDACTED] Utah
Area/Type: Urban
Date/Time: Fall / Weekday / Early morning
Accident Type: Van/Car Angle-Intersection

INJURY SEVERITY:

Vehicle 1: Driver, AIS-1
R/F Occupant, AIS-4
L/R Occupant, AIS-1
(3rd seat)

AMBIENCE:

Viewing Conditions: Early morning, no viewing restrictions
Cloud Cover: Clear
Precipitation: None
Temperature: Unknown
Road Surface: Dry

ROADWAY:

	VEHICLE 1	VEHICLE 2
Type:	9-lane, undivided, 5-lane southbound	9-lane, undivided, 4-lane northbound
Width:	Approximately 28.0 m (92.0 ft)	Approximately 28.0 m (92.0 ft)
Traffic Density:	Very heavy	Very heavy
Median:	None	None
Edge:	East edge raised concrete curb	West edge raised concrete curb
Surface:	Asphalt, good condition	Asphalt, good condition
Reported Defects:	None	None
Co-efficient of Friction (est.):	.75	.75
Vertical Alignment:	Level	Level
Horizontal Alignment:	Straight	Straight

TRAFFIC CONTROLS:

	VEHICLE 1	VEHICLE 2
Signals:	Overhead standard tri-colored signals	Overhead standard tri-colored signals
Signs:	None	None
Speed Limit:	64 KPH (40 MPH)	64 KPH (40 MPH)
Markings:	Solid double yellow lines separate north and southbound opposing traffic lanes. Solid white, and broken white lines separate southbound traffic lanes.	Solid double yellow lines separate north and southbound opposing traffic lanes. Solid white, and broken white lines separate northbound traffic lanes.

VEHICLES:

	VEHICLE 1	VEHICLE 2
Description:	1994 Dodge Caravan (SE)	1980 Chevrolet Malibu, 2 dr. Coupe
Odometer:	8,839 km (5,493 mi)	Unknown - not inspected
Engine:	3.0 L / V6	3.8 L / V6 2 BBL, per V.I.N.
Vehicle Modifications:	None	Unknown - not inspected
Tire Condition:	Excellent tread, no unusual tread pattern	Unknown - not inspected
Manual Restraints:	3-point lap/shoulder restraints at L/F, R/F, L/R, and R/R seating positions (3rd seat). 2-point lap restraint at C/R seating position (3rd seat). The 2nd seat was removed from the van prior to the collision.	3-point lap/shoulder restraints at L/F, and R/F seating positions. Unknown if any other type of restraints
Automatic Restraints:	Supplemental Restraint System, driver's and right front passenger's side air bags	None
Reported Defects:	None	None
Cargo:	Assorted school supplies, no substantial weight	Unknown - not inspected
Windshield Damage:	None. There are smudges on the right side of the windshield and an unknown object stuck to the windshield.	None
Fleet:	None	None
Tow Status:	Towed due to damage	Towed due to damage

VEHICLE DAMAGE:

	VEHICLE 1	VEHICLE 2
Object Struck:	Vehicle 2	Vehicle 1
Event Number:	01	01
CDC:	12FYEW1	02RFEW2 (photographs)
Maximum Crush:	18.7 cm (7.3 in) @ C ₄ (approx. center bumper)	Extent zone 2 at right front quarter panel, distributed

VEHICLE VELOCITY ESTIMATES:

	VEHICLE 1	VEHICLE 2
Total Delta V:	13 KPH (8 MPH)	16 KPH (10 MPH)
Longitudinal Delta V:	-13 KPH (-8 MPH)	-8 KPH (-5 MPH)
Lateral Delta V:	2 KPH (1 MPH)	-14 KPH (-8 MPH)
Energy Dissipation:	20,895.00 NT-M (15,409.3 FT-LB)	12,123.86 NT-M (8940.9 FT-LB)

Calculations based upon:

The Delta V (velocity changes) were computed by the damage only algorithm of the EDCRASH program. A copy of the output is included. Also a CRASH III PC program was conducted for comparison and a copy of the results is included in the Appendix "A"

COLLISION SEQUENCE:

Pre-Crash:

This two vehicle collision occurred during the early morning hours of a fall weekday at the intersection of a north/south urban trafficway. The weather was clear, there were no weather related viewing restrictions and the road surface was dry and free of defects. The traffic density was heavy and the posted speed limit was 64 KPH (40 MPH). The intersection is controlled by overhead standard tri-colored signals.

The trafficway measures approximately 28.0 m (92.0 ft) in width and consists of four northbound travel lanes separated by double yellow painted lines from five southbound travel lanes. The north and south travel lanes are internally separated by solid and broken white painted lines. The north and south travel lanes are straight and level. The roadway has an estimated coefficient of friction of .75.

Vehicle 1 (the case vehicle) was a 1994 Dodge Grand Caravan SE, driven by a 37 year old female. The vehicle was traveling in the southbound travel lane three approaching the intersection. The driver was not wearing the available lap/shoulder restraint. Occupant 2, a 4 year old female, was seated in the right front seat. She was not wearing the available lap/shoulder restraint. According to the driver of Vehicle 1, prior to the crash, occupant 2 was seated and attempting to fasten her lap/shoulder restraint. Occupant 3, a 10 year old female, was seated in the left rear seating position (3rd seat). She was not wearing the available lap/shoulder restraint.

Vehicle 2, a 1980 Chevrolet Malibu, driven by a 26 year old female, was traveling northbound approaching the same intersection in the left turn lane. The driver of Vehicle 2, according to the PAR, was wearing the available lap/shoulder restraint.

The driver of Vehicle 2, attempted a left turn directly in front of Vehicle 1. The driver of Vehicle 1 was braking and steering to the right in an attempt to avoid the collision with Vehicle 2.

Crash:

The front bumper of Vehicle 1 struck the right front quarter panel of Vehicle 2. The Delta V for Vehicle 1 was computed, using EDCRASH, as 13 KPH (8 MPH) using a CDC of 12FYEW1 and a PDOF of 350 degrees. The combined direct and induced damage width was 151.3 cm (59.6 in), and the maximum crush depth was 18.7 cm (7.3 in). The Delta V forces in this impact exceeded the manufacturer's threshold in the Supplemental Restraint System (SRS), and the driver's and passenger's side air bags in Vehicle 1 deployed.

Vehicle 2 was not inspected, but police photographs were available and a CDC of 02RFEW2 was assigned using a PDOF of 60 degrees. The combined direct and induced damage width was approximately 144.7 cm (57.0 in), and the maximum crush depth was classified as a zone 2 for the purpose of a CDC.

Post Crash:

Vehicle 1 went into a clockwise rotation of approximately 30 degrees and continued in a south-westerly direction. It mounted the southwest curb of the intersection, no residual damage was noted to the tire rims. Vehicle 1 came to final rest heading southwest on the sidewalk, and the grassy area of the southwest corner of the intersection.

Vehicle 2 went into a counterclockwise rotation and came to final rest heading in a south-westerly direction. Vehicle 2 then fled the scene of the crash heading west. The right front tire was restricted and did not allow Vehicle 2 to go very far.

Occupant Kinematics:

Occupant 1, the 37 year old driver of Vehicle 1, was seated unrestrained in a bucket seat in an upright seated position with her hands at the 10 and 2 o'clock positions. Her feet were on the floorboard with her right foot on the brake pedal. The driver was 160 cm (68 in) in height and weighed 54 kg (118 lb). The left front seat was adjusted to a position at, or near a center adjustment position prior to the crash.

At impact, the unrestrained driver moved forward, with the driver's side air bag simultaneously deploying. During the above event, the driver's chest area made contact with the deploying air bag and she sustained a contusion to her chest area. Her dress was also "burned" by the gases of the air bag (see photos #112, 113, 114).

Occupant 2, the 4 year old right front occupant of Vehicle 1, was seated unrestrained in a bucket seat. At the vehicle inspection the right front seat was adjusted at or near the farthest back position. According to the driver, the right front occupant was wearing a backpack and a heavy coat. The driver also stated she was attempting to fasten the lap/shoulder restraint at the time of the collision. When the driver of Vehicle 1 braked and steered right to avoid colliding with Vehicle 2, the brake induced deceleration caused the head and shoulders of the right front occupant to move down and forward into the instrument panel area. She possibly struck the instrument panel area somewhere around the right front side air bag module cover prior to the deployment of the air bag. This probably resulted in lacerations to her mouth, lower lip and nostrils, and two avulsed teeth. The right front occupant was rebounding from the instrument panel when Vehicle 1 impacted with Vehicle 2; the air bag deployed and subsequently expanded across the child's face causing an abrasion across her neck that was 5.0 cm in length slightly above her Adam's apple, and angled slightly upwards at each edge

as it extended across the neck horizontally. There were also superficial abrasions over her forehead, nose, cheeks, and chin caused by the air bag. Due to right front occupant's forward position, she restricted the deployment of the air bag. The force of the air bag accelerated the right front occupant in a vertical direction. The left side of her head struck the front header near the windshield, and the right side sun visor. There is a 17.8 cm circular indentation to the front header. This impact resulted in a left side open skull fracture (basilar), an AIS-4 injury, and several lacerations to the left side of her head.

The right front occupant rebounded from the vertical loading of the front header contact, and fell to rest in between both front bucket seats. She came to rest face down with her head pointing towards the front of the vehicle. The mother stated that she exited the vehicle and ran around the front of the van to open the right front door, and get the right front passenger out. The door was locked, and the mother had to run back to the left side to get the right front occupant out.

The investigator believes that the mother first reached down and placed the right front occupant on top of the right front seat before running around the van. The right front occupant bled profusely on the seat. The mother then lifted her out of the van through the left front door and laid her on the grass. Witnesses to the accident stopped to render assistance and attempted CPR, and noted that as air was blown into the mouth, that blood would gurgle out of the ears.

The right front occupant was pronounced dead on arrival at the hospital. There was only an emergency room examination of the right front occupant for the related injuries (see page 13), no autopsy was performed.

Occupant 3, the 10 year old left rear occupant of Vehicle 1, was seated unrestrained in an upright position on a bench seat (3rd seat). At impact with Vehicle 2, the unrestrained left rear occupant was moved forward. According to the driver of Vehicle 1, and the [REDACTED] reports, the left rear occupant was not injured. The PAR however, indicates possible injuries consisting of abrasions and contusions to her leg(s). The injuries may have occurred as a result of her striking the carpeted floor.

Supplemental Restraint System:

This 1994 Dodge Grand Caravan (SE) was equipped with driver's and right side passenger's air bags that deployed as a result of an angle type collision with a 1980 Chevrolet Malibu, 2-door.

The driver's air bag was not damaged during the collision sequence and did not yield evidence of occupant contact. However, the right side occupant's air bag had a 0.3 cm (0.12 in) tear,

located on the left half of the air bag, whose source could not be identified. There were also blood stains on both of the air bags in the lower left corners that were most likely the result of post-crash bleeding by occupant 2, the right front occupant. This probably occurred when the driver of Vehicle 1 pulled the R/F occupant out the left front door and laid her on the ground.

The driver's side un-tethered air bag was contained within the lower portion of the four spoke steering wheel and was mounted flush to the wheel rim. The module cover opened at the designated tear points in a typical H-configuration. The upper module cover measured 18.0 cm (7.1 in) horizontally x 5.8 cm (2.3 in) vertically. The lower module cover flap was 18.0 cm (7.1 in) horizontally x 6.3 cm (2.5 in) vertically. The cover flaps were molded of a vinyl type material. It measured 52.0 cm (20.3 in) in diameter in its deflated, post-crash state. The air bag was vented by two ports located at the 10 and 2 O'clock positions on the back side of the bag (away from the driver). The vent ports measured approximately 3.0 cm (1.3 in).

The right front passenger side air bag module assembly was located in the right upper instrument panel. The cover flap measured 33.0 cm (12.8 in) horizontally x 14.0 cm (5.5 in) vertically. The cover flap opened at the designated lower parting seam and was hinged at the upper horizontal surface, parallel to the base of the windshield, thus allowing the flap to open in an upward direction. The cover flap was molded of a vinyl type material.

Scene Clearance:

Vehicle 1 sustained moderate-disabling damage. Due to the traumatic injuries to the child occupant, and the transport of the driver and both child occupants, the vehicle was towed from the scene.

Vehicle 2 sustained moderate damage, and its right front suspension was damaged. The driver of the vehicle fled the scene but was apprehended at a later time. The vehicle was towed from the place where the police found it.

Safety Standards:

There were no violations of Federal Motor Vehicle Safety Standards noted during the on-site inspection of Vehicle 1.

DRIVER AND OTHER OCCUPANTS:

VEHICLE 1

	DRIVER	OCCUPANT 2
Age/Sex:	37 year old/female	4 year old/female
Seated Position:	Left front	Right front
Seat Type:	Bucket	Bucket
Height:	160.0 cm (63.0 in)	104.0 cm (41.0 in)
Weight:	54 kg (118 lb)	16 kg (35 lb)
Occupation:	Teacher	Minor child
Pre-existing Medical Condition:	Unknown	Unknown
Alcohol/Drug Involvement:	None/None	N/A
Driving Experience:	21	N/A
Body Posture:	Normal upright	Upright per the driver (wearing back pack)
Hand Position:	10 & 2 O'clock positions	The driver stated that the occupant was trying to fasten the lap/shoulder restraint.
Foot Position:	On floorboard with the right foot on the brake pedal	On the seat
Restraint Usage:	None	None
Additional Occupants:	2	

DRIVER AND OTHER OCCUPANTS (con't):

VEHICLE 1

OCCUPANT 3

Age/Sex:	10 year old/female
Seated Position:	Left rear
Seat Type:	Bench with folding back
Height:	147.0 cm (58.0 in)
Weight:	27 kg (60 lb)
Occupation:	Student
Pre-existing Medical Condition:	Unknown
Body Posture:	Seated on bench seat
Hand Position:	Unknown
Foot Position:	Unknown
Restraint Usage:	None
Additional Occupants:	None

INJURIES:**Vehicle 1**

	INJURY	AIS/OIC CODE	ICD-9	SOURCE
DRIVER: (case occupant)	Contusion to chest area	490402.1,4	922.1	Air bag
R/F OCCUPANT: (case occupant)	Depressed & open skull fracture, left side of head (Basilar skull fracture)	150206.4,8	801.5	Front roof header
	Two avulsed teeth	251406.1,8	873.63	Instrument panel
	Superficial abrasion over forehead, nose, cheeks, chin	290202.1,0	910.0	Air bag
	Lacerations to mouth	243204.1,8	873.61	Instrument panel
	Lacerations scattered over scalp (top frontal)	190600.1,5	873.0	Instrument panel
	Lacerations on nose, nostrils	290602.1,4	873.20	Instrument panel
	Laceration below lower lip	290600.1,8	873.44	Instrument panel
	Contusion across upper neck (above the level of the Adam's apple)	390402.1,6	920	Air bag
	Laceration, left side of head (temple area)	190602.1,2	873.0	Front roof header
	Laceration, posterior of left ear (just above the area of the mastoid process)	190600.1,2	873.0	Front roof header
R/R OCCUPANT:	Contusions to leg	890202.1,9	924.10	Floor
	Abrasions to leg	890402.1,9	916.0	Floor

According to Emergency Room medical records the right front occupant sustained fatal injuries consisting of:

"..lacerations scattered over the scalp with the impression of depressed and open skull fracture. There is blood coming from both ear canals. The face has smooth superficial abrasions over the exposed forehead, nose, cheeks, and chin, suggesting very rapid contact with a smooth surface, such as the air bag. Nose has some lacerations immediately on the nostrils. Two front teeth are avulsed, there are oral lacerations and a laceration just below the lower lip. There is a band or ecchymosis and marking across the upper neck, suggesting rapid contact with a linear object."

The doctor's detailed information on the right front occupant injuries.

"The abrasions which were present on _____'s face were extremely smooth and covered most of the face from chin to upper forehead. The abrasions actually followed the curved surfaces in a manner which I have never seen caused by collision with a hard object, such as dashboard, floor, or windshield. The combination of distribution of abrasions, with their slightly purplish color, led me to believe that the only way this injury could have occurred is by rapid velocity impact of a deploying air bag on _____'s face. The lacerations on the nostrils, lip, and oral lacerations appeared to be typical bursting-type lacerations caused by blunt impact. No sharp abrasions or lacerations were seen. The mark across the neck was slightly above the level of the Adam's apple. It was approximately 5.0 cm in length, angling very slightly upward at each edge, as it extended across the neck horizontally. The ecchymosis seemed extremely superficial and was very similar in appearance to the color of the facial injury, but without the overlying abrasion of skin. This band of discoloration was about 0.5 cm in width. Although the impression of the paramedics was that the patient had an unstable C-spine fracture, I did not appreciate this as I moved _____'s head. There was no swelling, palpable deformity, or crepitance on the neck at the time of my examination. Pressing on the child's forehead caused a sensation of crepitance with some motion in the area of the temple. In that location was a laceration about 6.0 cm in length running mostly vertically, extending slightly posterior as it went downward. A couple of other lacerations were present over the frontal skull, but I do not recall their orientation or size clearly at this time. My impression on palpation of the skull was that there were some irregularity extending around in a coronal orientation in the area of the temple extending across the vertex and over towards the other side of the skull, but I did not open the laceration to explore further. I believe the patient also had a laceration posterior to the ear, just above the area of the mastoid process on the left, but no lacerations were found posterior to the area. There was no evidence found of an impact on the rear of the skull."

There were no x-rays or photographic documentation of the right front occupant's injuries. The treating emergency room physician diagramed injury locations from memory (see Appendix "D").

Abbreviations Used In Narrative, Scene And Photographic Documentation

ft.	Feet
in.	Inches
AIS	Abbreviated Injury Scale
BLF	Begin Left Front
BLR	Begin Left Rear
BRF	Begin Right Front
BRR	Begin Right Rear
CBE	Cab Behind Engine
CCW	Counterclockwise
CDC	Collision Deformation Classification
CG	Center of Gravity
CM	Centimeter
COE	Cab Over Engine
CW	Clockwise
E, EB	East, Eastbound
ELF	End Left Front
ELR	End Left Rear
ERF	End Right Front
ERR	End Right Rear
FRP	Final Rest Position
I	Interstate Highway
IP	Intermediate Point
KG	Kilogram
KPH	Kilometers Per Hour
LF	Left Front
LR	Left Rear
M	Meter
N, NB	North, Northbound
NE	Northeast
NW	Northwest
PDOF	Principal Direction of Force
POI	Point of Impact
R	Radius of Curvature
RF	Right Front
RL	Reference Line
RP	Reference Point
RR	Right Rear
S, SB	South, Southbound
SE	Southeast
SW	Southwest
T	Time or Elapsed Time (in seconds)
U.S.	United States Highway
V1	Vehicle Number 1
W, WB	West, Westbound



Photograph #21 (Police Photograph)

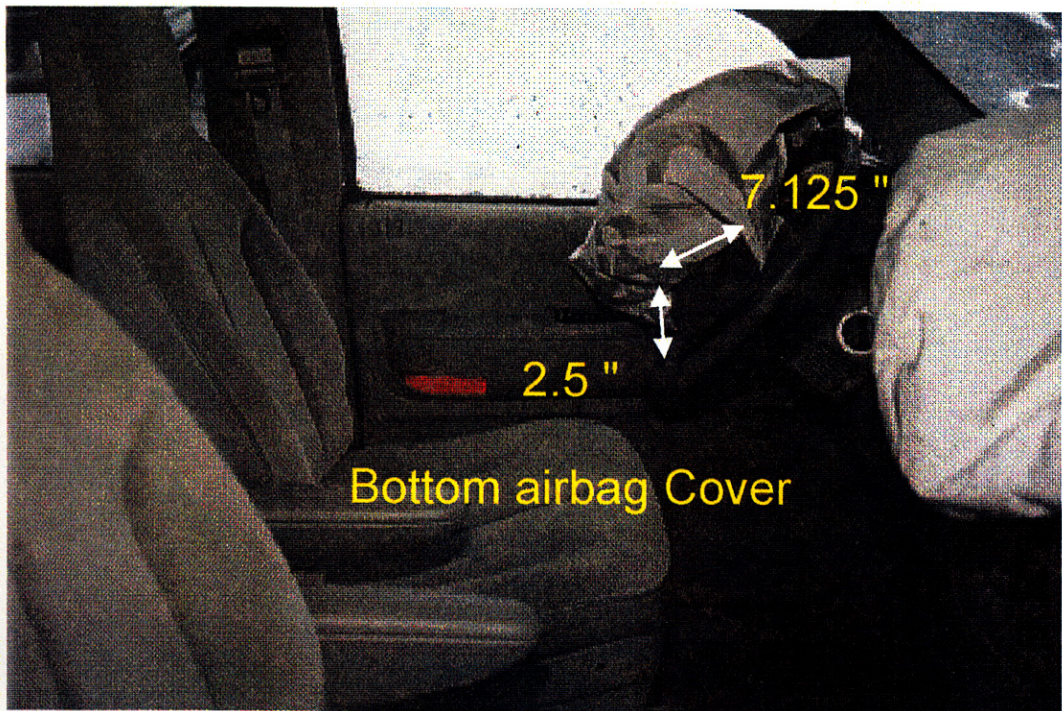
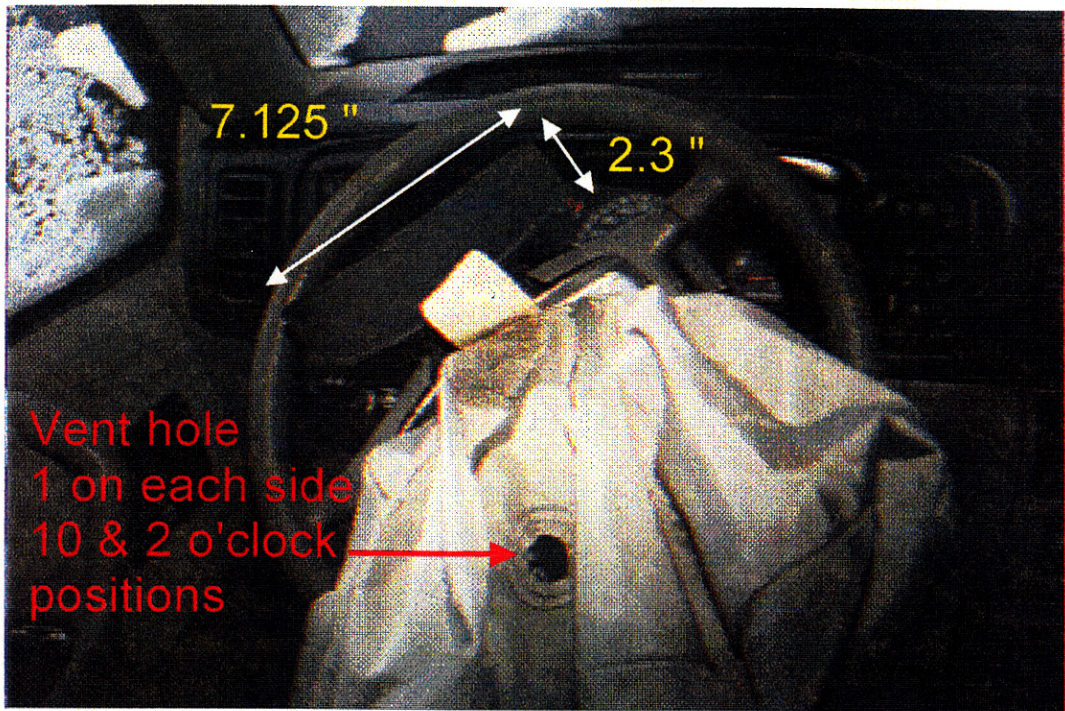
There are smudge marks on the windshield from the powder residue of the airbag.

The yellow arrow is pointing to a linear smudge from the stitching of the airbag. An exemplar vehicle was inspected, and the stitching was present on the back left side and it lined up in a similar manner as it appears in the photo.

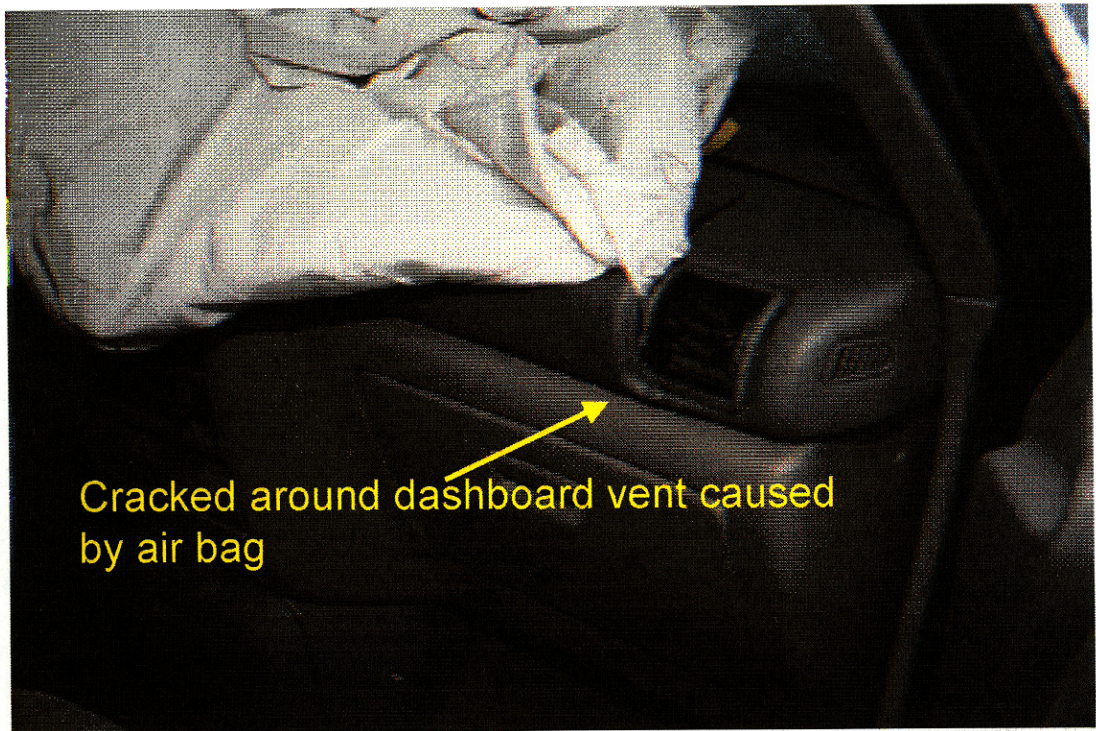
The purple parentheses is outlining smudge marks that are commonly referred to as powder residue.

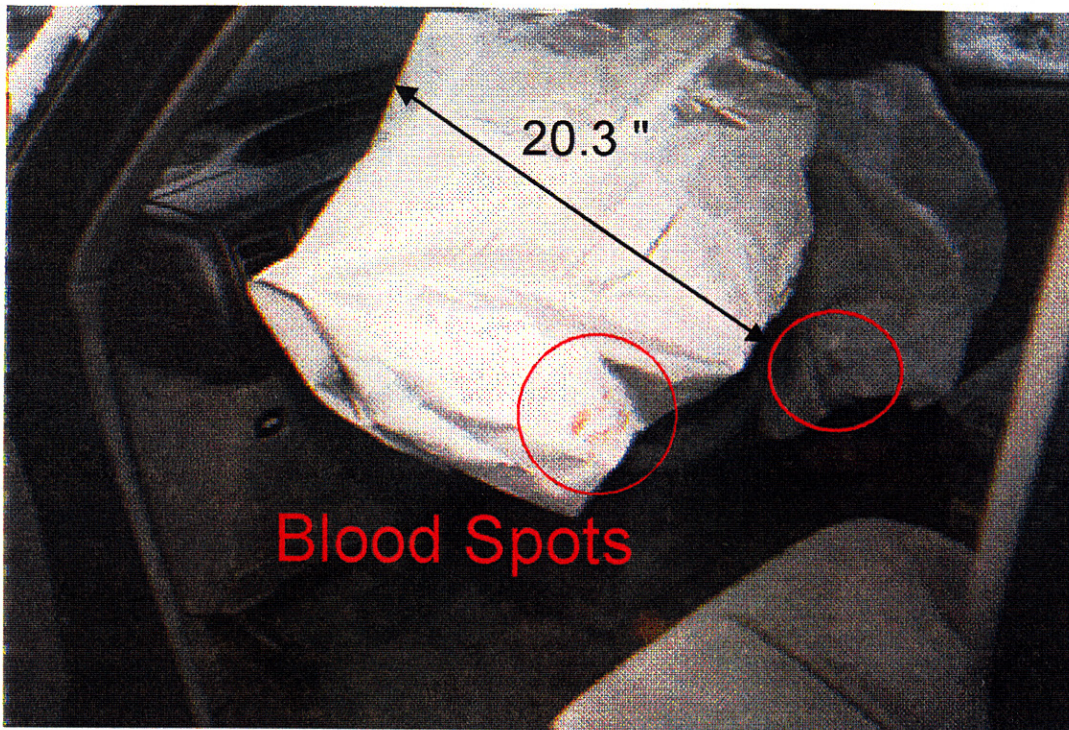
The red arrow is pointing to an unknown object that is embedded on the windshield. It probably came from the "backing" paper that some air bags are "wrapped" in. An exemplar vehicle was inspected, and this "backing" paper was present. It was torn and present behind the air bag module.

Neither the smudge marks or the object were visible when Vehicle 1 was inspected.

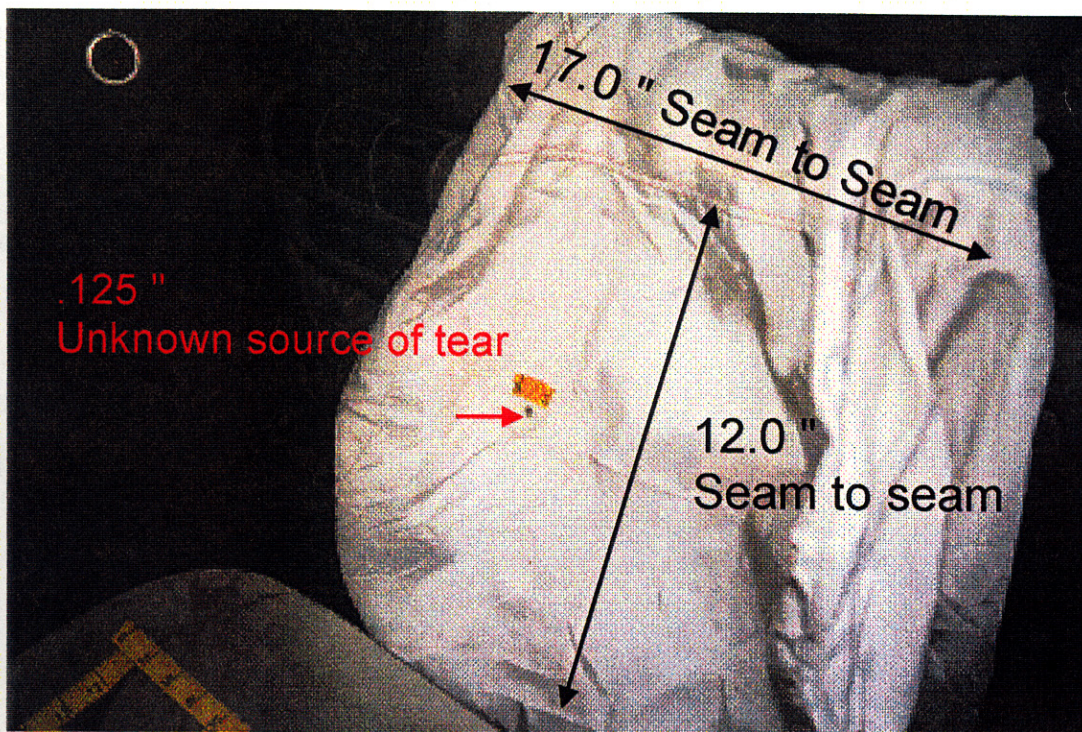


Upper and Lower airbag covers

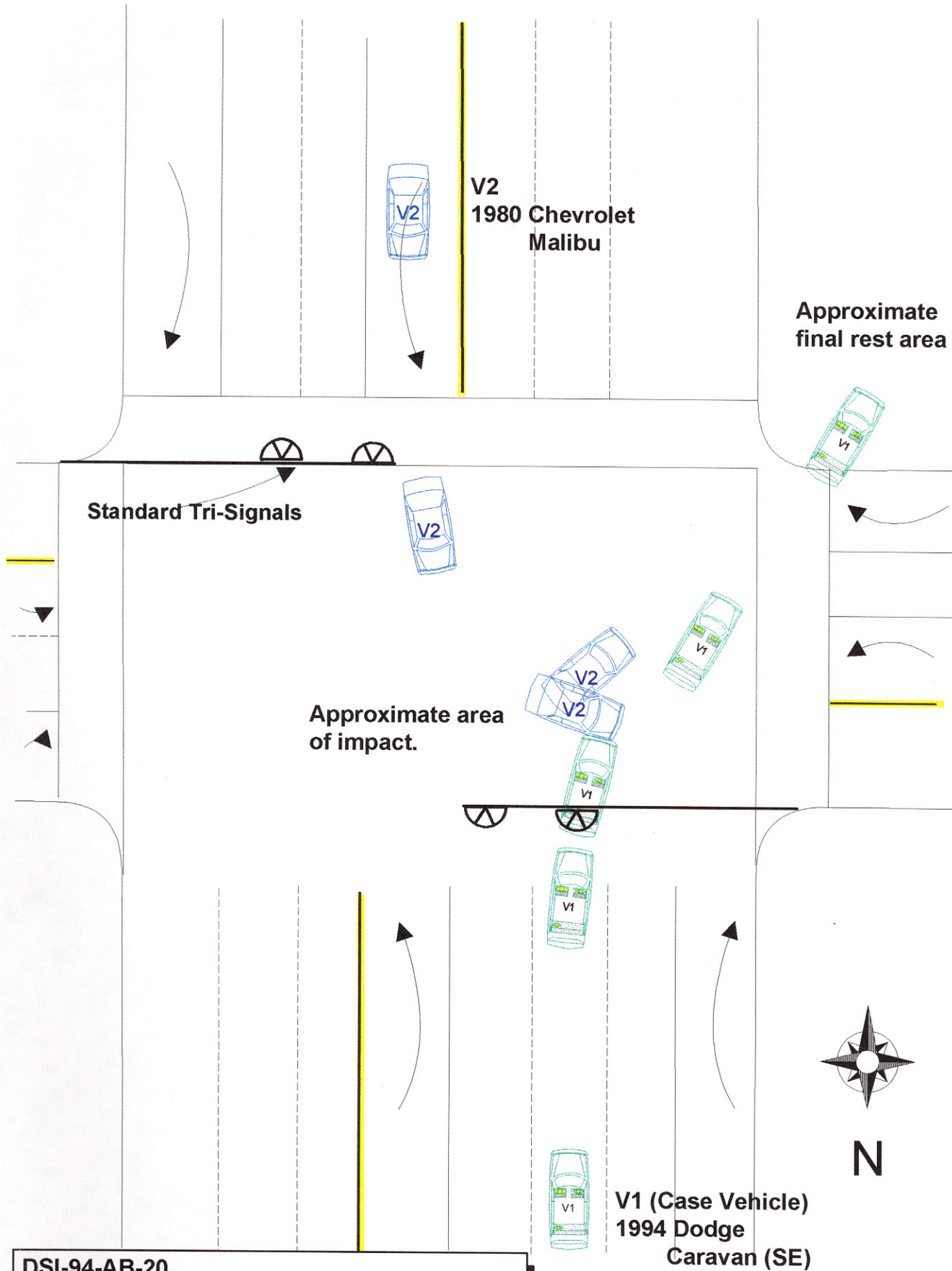




The right front occupant was the source of the bleeding



Driver and right front occupant airbags



DSI-94-AB-20
 Bituminous Straight & Level Surface
 64 KPH (40 MPH) Posted Speed Zone
 1" = 20' Scale

PHOTO INDEX

Case Number DSI-AB-94-020

PHOTO NO.	VEHICLE NO.	ORIENTATION	SUBJECT MATTER
			***The following photographs were taken by police at the scene of the collision.
01-04	01 & 02	North-East	LF-skidmark of V1 braking post impact an at impact. RF-skidmark of V2 at impact.
05	01 & 02	North-East	Debris and fluid spill of both vehicles leading away from impact area towards final rest area.
06-07	01	East	Final rest.
08-13	01		Exterior damage to Vehicle 1.
14-19	01		Interior of Vehicle 1.
20-21	01		Right side of windshield, smudge marks made by air bag powder residue. There is also something on windshield, it is not known if this was something placed to highlight smudge marks, origin is unknown.
22-23	01		Right front occupant seat.
24	01		Area in between both front seats, and area where right front occupant came to rest after impact.
25-26	01		Area behind front seats.
27	01		Rear seat.
28-34	02		Exterior damage to vehicle.
			**The following photographs were taken by investigator.
35-37	01	South	Direction of travel towards impact.
38	01	South-West	Impact area.
39-41	01	South-West	Post impact direction of travel towards final rest area.
42	01	South-West	Final rest area.
43	01	North	Opposite direction of travel from impact area.
44-46	02	North	Direction of travel towards impact.

47-48	02	North-West	Impact area.
49-64	01		Exterior vehicle damage without crush stands.
65-68	01		Vehicle's bumper was off bumper brackets. Crush stands and measuring sticks were first set at along the leading edge of the bumper brackets at C1-C5.
69-72	01		Bumper was placed on brackets and crush stands and sticks were then set at bumper and crush was then measured.
73-79	01		Left front driver's area including the air bag.
80-86	01		Right front side area including the air bag. Note the holes to the air bag. It is unknown what caused them.
87-91	01		Right front windshield, sun visor, and roof area.
92-98	01		Left front windshield, and damaged sun visor area.
99	01		Center front console, dashboard.
100-101	01		Center area between both front seats.
102-104	01		Right front seat.
105-108	01		Right front seat, cracked molding to the left side of seat.
109	01		Middle area. Note that middle seat was removed and not in place at time of collision.
110-111	01		Rear seat.
112-114	01		Dress that driver at time of collision was wearing. Note the burn area that was caused by gases of air bag.
			**The following photographs were taken by a relative, and provided to the investigator by an NTSB investigator.
115-116	01		Windshield header, and roof head liner.
117-122	01		Circular indentation to roof head liner, and sun visor.
123-124	01		Object embedded in windshield, smudge marks of air bag powder residue, and air bag stitching.
125	01		Driver's side sun visor.



AB20-001



AB20-002







AB20-005



AB20-006





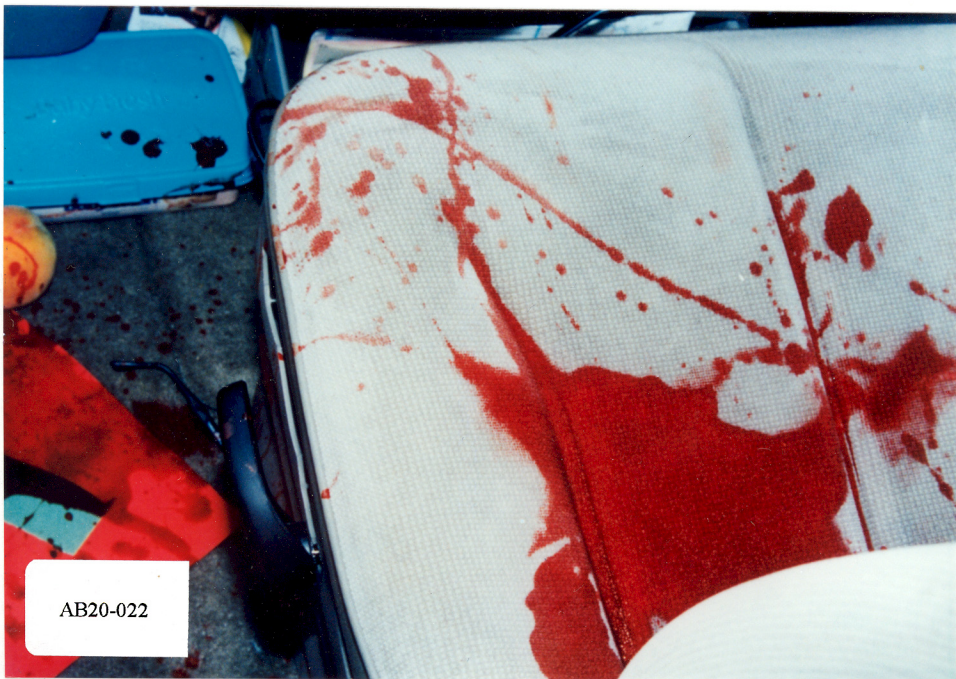










































AB20-051



AB20-052



































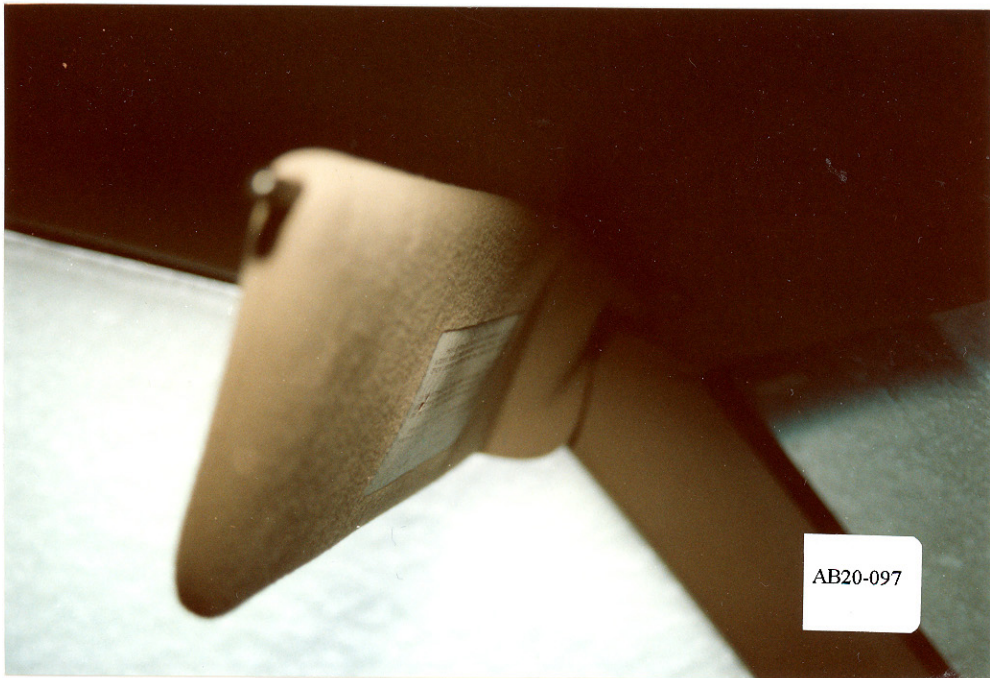








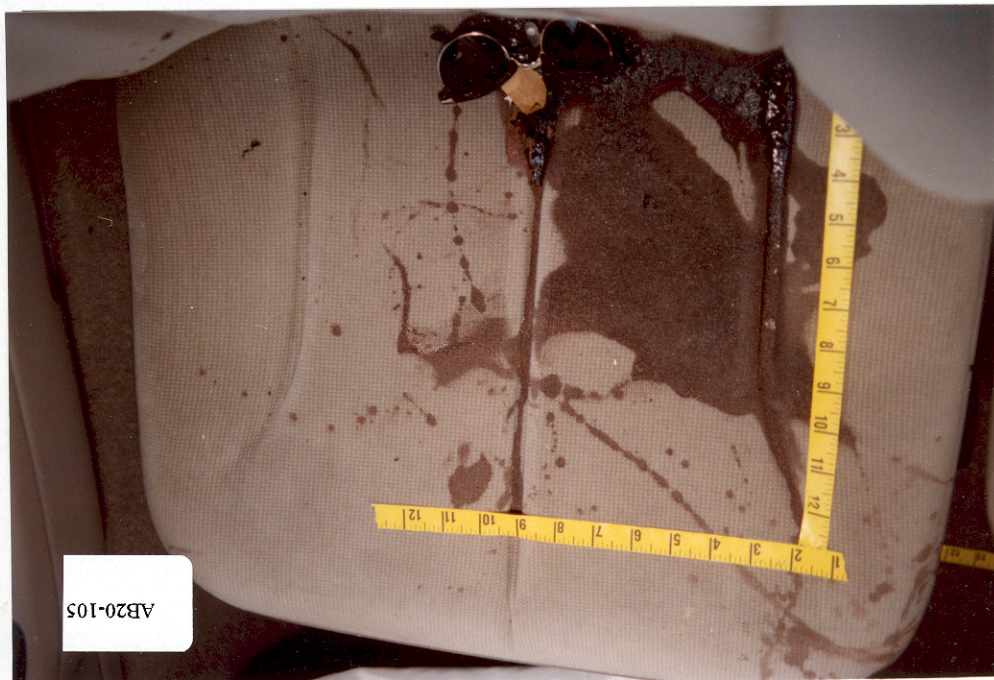










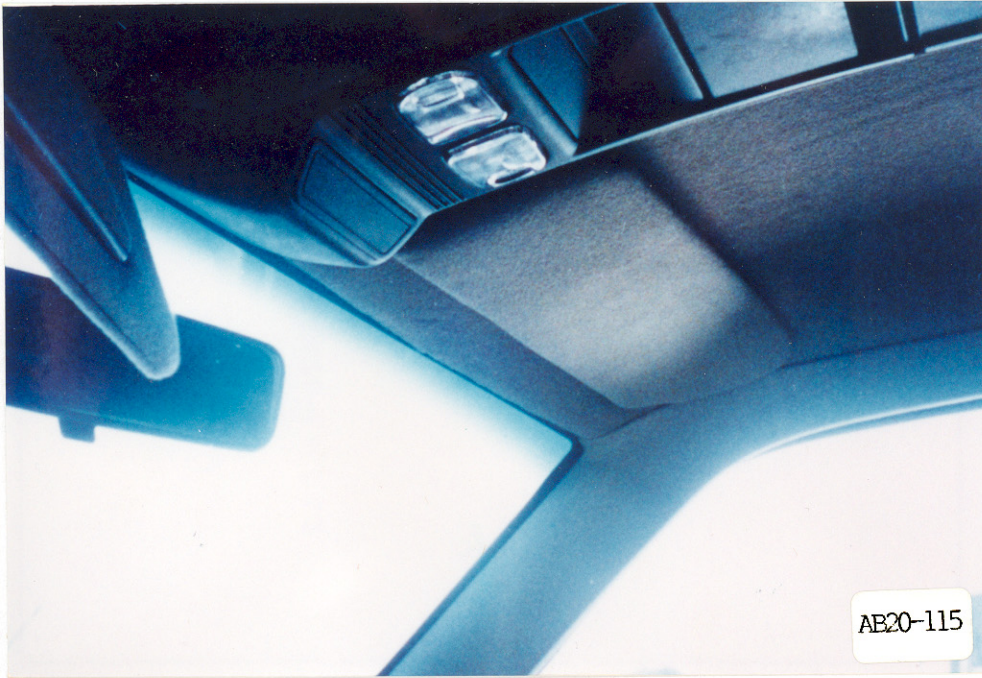


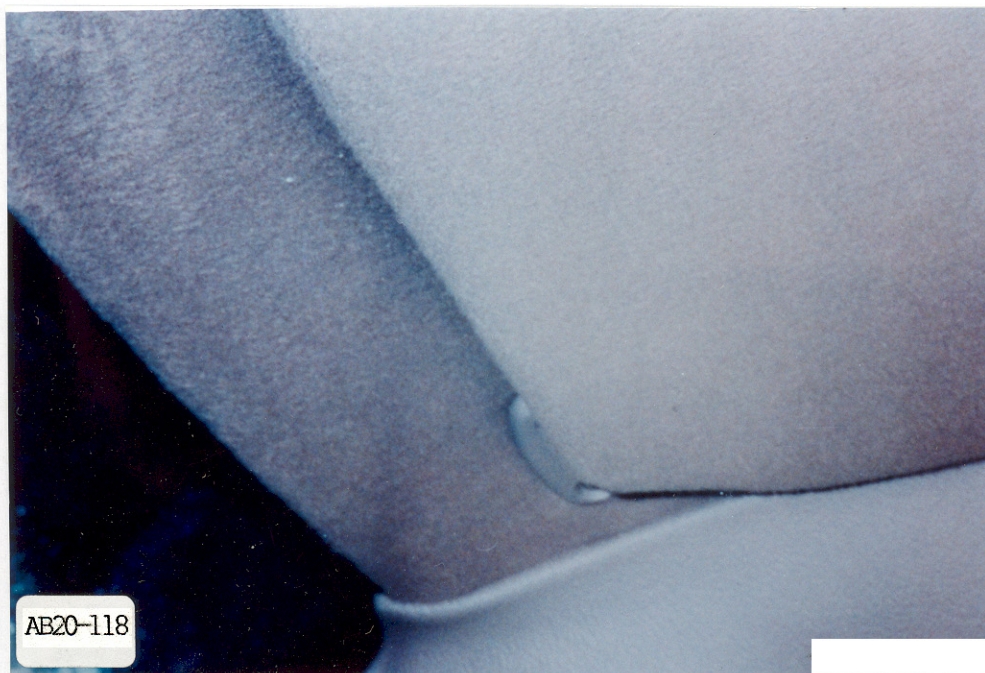
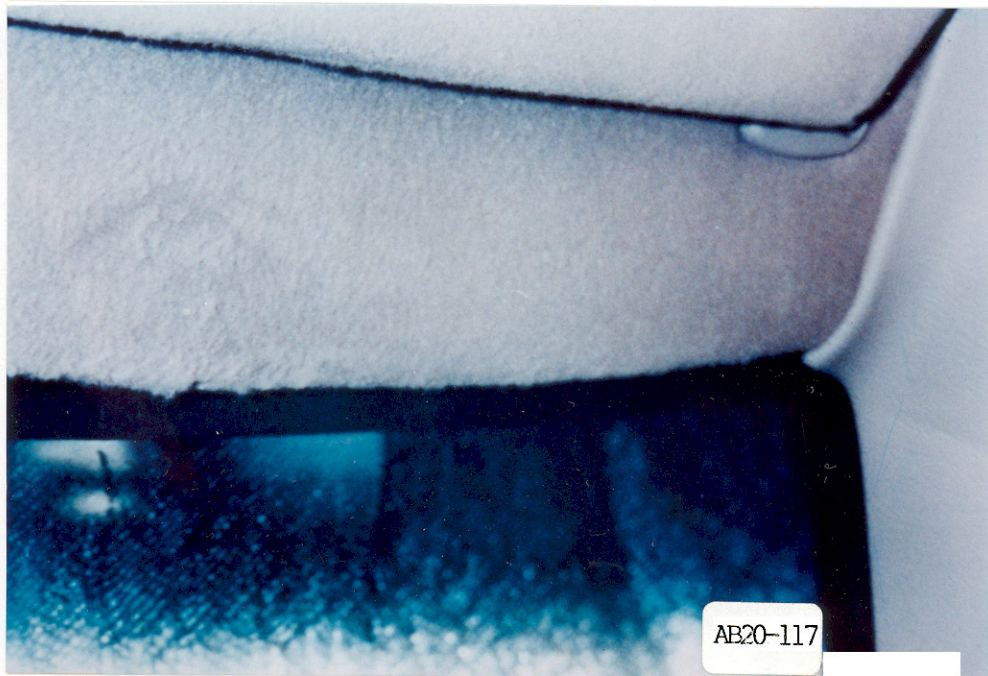


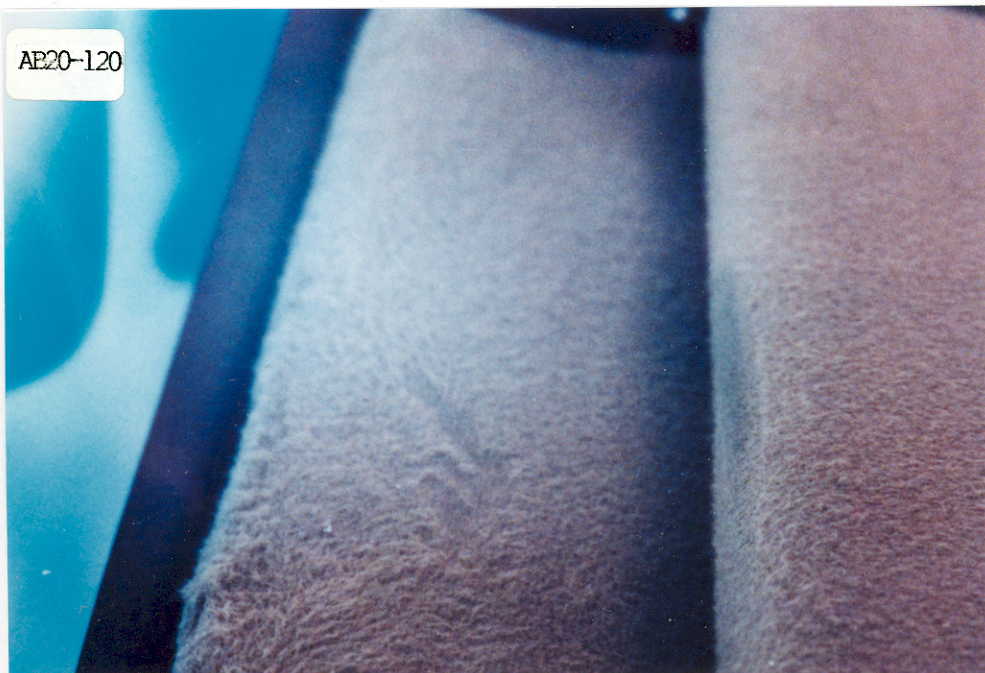
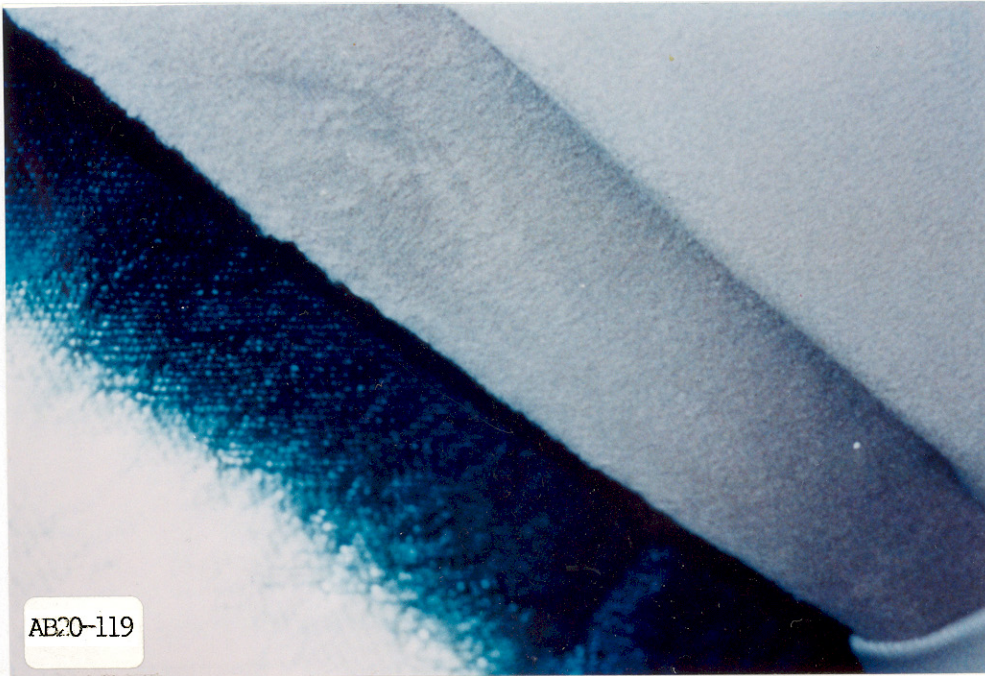












AE20-121



AE20-122





THIS VEHICLE HAS DRIVER AND PASSENGER AIR BAGS.**WARNING!**

YOU COULD BE MORE SERIOUSLY INJURED IN A COLLISION IF YOU RELY ON THE AIR BAG ALONE FOR RESTRAINT. WEAR YOUR SEAT BELT EVEN THOUGH YOU HAVE AN AIR BAG.

BEING TOO CLOSE TO THE STEERING WHEEL OR INSTRUMENT PANEL DURING AIR BAG DEPLOYMENT COULD CAUSE SERIOUS INJURY. AIR BAGS NEED ROOM TO INFLATE. SIT BACK, COMFORTABLY EXTENDING YOUR ARMS TO REACH THE STEERING WHEEL OR INSTRUMENT PANEL.

REARWARD-FACING CHILD RESTRAINTS SHOULD ONLY BE USED IN A REAR SEAT. A CHILD MAY BE SERIOUSLY OR FATALLY INJURED IN A REARWARD-FACING RESTRAINT PLACED IN THE FRONT SEAT IF THE RESTRAINT IS STRUCK BY A DEPLOYING PASSENGER AIR BAG.

AB20-125

SLIDE INDEX

Case Number DSI-94-AB-020

SLIDE NO.	VEHICLE NO.	ORIENTATION	SUBJECT MATTER
01-03	01	South	Direction of travel towards impact.
04	01	South-West	Impact area.
05-07	01	South-West	Post impact direction of travel towards final rest area.
08	01	South-West	Final rest area.
09	01	North	Opposite direction of travel from impact area.
10-12	02	North	Direction of travel towards impact.
13-14	02	North-West	Impact area.
15-31	01		Exterior vehicle damage without crush stands.
32-35	01		Vehicle's bumper was off bumper brackets. Crush stands and measuring sticks were first set at along the leading edge of the bumper brackets at C1-C5.
36-39	01		Bumper was placed on brackets and crush stands and sticks were then set at bumper and crush was then measured.
40-46	01		Left front driver's area including the air bag.
47-52	01		Right front side area including the air bag. Note the holes to the air bag. It is unknown what caused them.
53-56	01		Right front windshield, sun visor, and roof area.
57-61	01		Left front windshield, and damaged sun visor area.
62	01		Center front console, dashboard.
63-64	01		Center area between both front seats.
65-67	01		Right front seat.
68-70	01		Right front seat, cracked molding to the left side of seat.
71	01		Middle area. Note that middle seat was removed and not in place at time of collision.
72-73	01		Rear seat.
74-76	01		Dress that driver at time of collision was wearing. Note the burn area that was caused by gases of air bag.



DS9420 #1



DS9420 #2



DS9420 #3



DS9420 #4



DS9420 #5



DS9420 #6



DS9420 #7



DS9420 #8



DS9420 #9



DS9420 #10



DS9420 #11



DS9420 #12



DS9420 #13



DS9420 #14



DS9420 #15



DS9420 #16



DS9420 #17



DS9420 #18



DS9420 #19



DS 9420 #20



DS9420 #21



DS 9420 #22



DS9420 #23



DS 9420 #24
Best Available



DS9420 #25



DS9420 #26



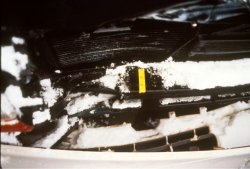
DS9420 #27



DS9420 #28



DS9420 #29



DS9420 #30
Best Available



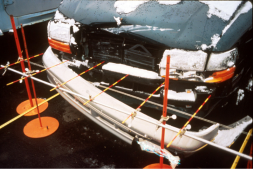
DS9420 #31
Best Available



DS 9420 #32
Best Available



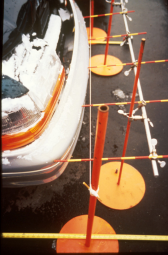
DS9420 #33
Best Available



DS 9420 #34
Best Available



DS9420 #35
Best Available



DS9420 #36
Best Available



DS 9420 #37
Best Available



DS 9420 #38
Best Available



DS9420 #39
Best Available



DS 8420 #40



DS9420 #41



DS 9420 #42
Best Available



DS9420 #43



DS9420 #44



DS9420 #45



DS9420 #46



DS9420 #47
Best Available



DS9420 #48
Best Available



DS9420 #49
Best Available



DS9420 #50
Best Available



DS9420 #51
Best Available



DS 9420 #52
Best Available



DS 9420 #53
Best Available



DS 9420 #54
Best Available



DS9420 #55



DS9420 #56



DS9420 #57
Best Available



DS 9420 #56
Best Available



DS9420 #59
Best Available



DS9420 #60
Best Available



DS9420 #61



DS9420 #62



DS 9420 #63
Best Available



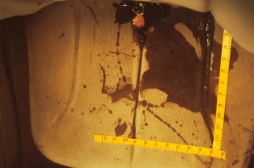
DS 9420 #64
Best Available



DS9420 #65
Best Available



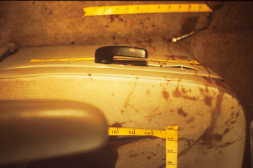
DS9420 #66
Best Available



DS9420 #67
Best Available



DS 9420 #68
Best Available



DS9420 #69
Best Available



DS9420 #70
Best Available



DS9420 #71



DS 9420 #72



DS9420 #73



DS9420 #74



DS9420 #75



DS9420 #78

ACCIDENT FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

2. Case Number - Stratum DSI-94-AB-20

IDENTIFICATION

3. Number of General Vehicle
Forms Submitted 024. Date of Accident
(Month, Day, Year) A FALL WEEKDAY
___/___/94
EARLY MORNING HOURS5. Time of Accident ___

Code reported military time of accident.

NOTE: Midnight = 2400
Unknown = 9999

SPECIAL STUDIES - INDICATORS

Check (✓) each special study (SS14-SS18 below) that
has been completed; code 1 for the checked special
studies and 0 for the special studies not checked.6. 0 SS15 Administrative Use 07. 0 SS16 Pedestrian Crash Data Study 08. 0 SS17 Impact Fires 09. 0 SS18 010. 0 SS19 0

NUMBER OF EVENTS

11. Number of Recorded Events
in This Accident 01Code the number of events which occurred
in this accident.

ACCIDENT EVENTS

For each event that occurred in the accident, code the lowest numbered vehicle in the left columns and the other
involved vehicle or object on the right.

Accident Event Sequence Number	Vehicle Number	Class Of Vehicle	General Area of Damage	Vehicle Number or Object Contacted	Class Of Vehicle	General Area of Damage
12. <u>0</u> <u>1</u>	13. <u>01</u>	14. <u>13</u>	15. <u>F</u>	16. <u>02</u>	17. <u>03</u>	18. <u>R</u>
19. <u>0</u> <u>2</u>	20. <u> </u>	21. <u> </u>	22. <u> </u>	23. <u> </u>	24. <u> </u>	25. <u> </u>
26. <u>0</u> <u>3</u>	27. <u> </u>	28. <u> </u>	29. <u> </u>	30. <u> </u>	31. <u> </u>	32. <u> </u>
33. <u>0</u> <u>4</u>	34. <u> </u>	35. <u> </u>	36. <u> </u>	37. <u> </u>	38. <u> </u>	39. <u> </u>
40. <u>0</u> <u>5</u>	41. <u> </u>	42. <u> </u>	43. <u> </u>	44. <u> </u>	45. <u> </u>	46. <u> </u>

IF GREATER THAN FIVE EVENTS, CONTINUE CODING ON THE ACCIDENT EVENT SUPPLEMENT

CODES FOR CLASS OF VEHICLE

- (00) Not a motor vehicle
- (01) Subcompact/mini (wheelbase < 254 cm)
- (02) Compact (wheelbase ≥ 254 but < 265 cm)
- (03) Intermediate (wheelbase ≥ 265 but < 278 cm)
- (04) Full size (wheelbase ≥ 278 but < 291 cm)
- (05) Largest (wheelbase ≥ 291 cm)
- (09) Unknown passenger car size
- (11) Compact utility vehicle
- (12) Large utility vehicle (≤ 4,500 kgs GVWR)
- (13) Passenger van (≤ 4,500 kgs GVWR)
- (14) Other van (≤ 4,500 kgs GVWR)
- (15) Pickup truck (≤ 4,500 kgs GVWR)
- (18) Other truck (≤ 4,500 kgs GVWR)
- (19) Unknown light truck type
- (20) School bus
- (21) Other bus
- (22) Truck (> 4,500 kgs GVWR)
- (23) Tractor without trailer
- (24) Tractor-trailer(s)
- (25) Motored cycle
- (28) Other vehicle
- (99) Unknown

CODES FOR GENERAL AREA OF DAMAGE (GAD)

CDS APPLICABLE AND OTHER VEHICLES

- (O) Not a motor vehicle
- (N) Noncollision
- (F) Front
- (R) Right side
- (L) Left side
- (B) Back
- (T) Top
- (U) Undercarriage
- (9) Unknown

TDC APPLICABLE VEHICLES

- (O) Not a motor vehicle
- (N) Noncollision
- (F) Front
- (R) Right side
- (L) Left side
- (B) Back of unit with cargo area (rear of trailer or straight truck)
- (D) Back (rear of tractor)
- (C) Rear of cab
- (V) Front of cargo area
- (T) Top
- (U) Undercarriage
- (9) Unknown

CODES FOR VEHICLE NUMBER OR OBJECT CONTACTED

(01-30) — Vehicle Number

Noncollision

- (31) Overturn — rollover
- (32) Fire or explosion
- (33) Jackknife
- (34) Other intraunit damage (specify):

(35) Noncollision injury

(38) Other noncollision (specify):

(39) Noncollision — details unknown

Collision With Fixed Object

- (41) Tree (≤ 10 cm in diameter)
- (42) Tree (> 10 cm in diameter)
- (43) Shrubbery or bush
- (44) Embankment

(45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post

- (50) Pole or post (≤ 10 cm in diameter)
- (51) Pole or post (> 10 cm but ≤ 30 cm in diameter)
- (52) Pole or post (> 30 cm in diameter)
- (53) Pole or post (diameter unknown)

(54) Concrete traffic barrier

(55) Impact attenuator

(56) Other traffic barrier (includes guardrail) (specify):

(57) Fence

(58) Wall

(59) Building

(60) Ditch or culvert

(61) Ground

(62) Fire hydrant

(63) Curb

(64) Bridge

(68) Other fixed object (specify):

(69) Unknown fixed object

Collision with Nonfixed Object

(71) Motor vehicle not in-transport

(72) Pedestrian

(73) Cyclist or cycle

(74) Other nonmotorist or conveyance

(75) Vehicle occupant

(76) Animal

(77) Train

(78) Trailer, disconnected in transport

(79) Object fell from vehicle in-transport

(88) Other nonfixed object (specify):

(89) Unknown nonfixed object

(98) Other event (specify):

(99) Unknown event or object

GENERAL VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

2. Case Number - Stratum DSI-94-AB-203. Vehicle Number 01

VEHICLE IDENTIFICATION

4. Vehicle Model Year 94
Code the last two digits of the model year
(99) Unknown5. Vehicle Make (specify): 07
DODGE
Applicable codes are found in your
NASS Data Collection, Coding and
Editing Manual.
(99) Unknown6. Vehicle Model (specify): 442
GRAND CARAVAN (SE)
Applicable codes are found in your
NASS Data Collection, Coding and
Editing Manual.
(999) Unknown7. Body Type 20
Note: Applicable codes may be found on
the back of this page.8. Vehicle Identification Number
1B4GH4435RX XXXXXX
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
Left justify; Slash zeros and letter Z (0 and Z)
No VIN—Code all zeros
Unknown—Code all nines

OFFICIAL RECORDS

9. Police Reported Vehicle Disposition 1
(0) Not towed due to vehicle damage
(1) Towed due to vehicle damage
(9) Unknown10. Police Reported Travel Speed 999
Code to the nearest kph (NOTE: 000 means
less than 0.5 kph)
(160) 159.5 kph and above
(999) Unknown
____ mph X 1.6093 = ____ kph11. Police Reported Alcohol Presence 0
(0) No alcohol present
(1) Yes (alcohol present)
(7) Not reported
(8) No driver present
(9) UnknownNote: See variables 37 through 55
(Page 4) for information on Other Drugs12. Alcohol Test Result For Driver 96
Code actual value (decimal implied
before first digit—0.xx)
(95) Test refused
(96) None given
(97) AC test performed, results unknown
(98) No driver present
(99) UnknownSource: PAR

ACCIDENT RELATED

13. Speed Limit 064
(000) No statutory limit
Code posted or statutory speed limit
in kph
(999) Unknown40 mph X 1.6093 = 064 kph14. Attempted Avoidance Maneuver 09
(01) No avoidance actions
(02) Braking (no lockup)
(03) Braking (lockup)
(04) Braking (lockup unknown)
(05) Releasing brakes
(06) Steering left
(07) Steering right
(08) Braking and steering left
(09) Braking and steering right
(10) Accelerating
(11) Accelerating and steering left
(12) Accelerating and steering right
(97) No driver present
(98) Other action (specify):
(99) Unknown15. Accident Type 69
Applicable codes may be found on the
back of page two of this field form
(00) No impact
Code the number of the diagram that
best describes the accident circumstance
(98) Other accident type (specify):
(99) Unknown

**** SKIP TO VARIABLE GV37 IF GV07 DOES NOT EQUAL 01-49 ****

CODES FOR BODY TYPE

CDS APPLICABLE VEHICLES

Automobiles

- (01) Convertible (excludes sun-roof, t-bar)
- (02) 2-door sedan, hardtop, coupe
- (03) 3-door/2-door hatchback
- (04) 4-door sedan, hardtop
- (05) 5-door/4-door hatchback
- (06) Station wagon (excluding van and truck based)
- (07) Hatchback, number of doors unknown
- (08) Other automobile type (specify):
- (09) Unknown automobile type

Automobile Derivatives

- (10) Auto based pickup (includes El Camino, Caballero, Ranchero, Brat, and Rabbit pickup)
- (11) Auto based panel (cargo station wagon, auto based ambulance/hearse)
- (12) Large limousine - more than four side doors or stretched chassis
- (13) Three-wheel automobile or automobile derivative

Utility Vehicles ($\leq 4,500$ kgs GVWR)

- (14) Compact utility (Jeep CJ-2 - CJ-7, Scrambler, Golden Eagle, Renegade, Laredo, Wrangler, Cherokee [84 and after], Dispatcher, Raider, Bronco II, Bronco [76 and before], Explorer, S-10 Blazer, Geo Tracker, Bravada, S-15 Jimmy, Thing, Pathfinder, Trooper, Trooper II, Rodeo, Amigo, Navajo, 4-Runner, Montero, Samurai, Sidekick, Rocky)
- (15) Large utility (includes Jeep Cherokee [83 and before], Ramcharger, Trailduster, Bronco-fullsize [78 and after], fullsize Blazer, fullsize Jimmy, Landcruiser, Rover, Scout)
- (16) Utility station wagon (Chevy Suburban, GMC Suburban, Travelall, Grand Wagoneer, includes suburban limousine)
- (19) Utility, unknown body type

Van Based Light Trucks ($\leq 4,500$ kgs GVWR)

- (20) Minivan (Chrysler Town and Country, Caravan, Grand Caravan, Voyager, Grand Voyager, Mini-Ram, Dodge/Plymouth Vista, Aerostar, Villager, Lumina APV, Trans Sport, Silhouette, Astro, Safari, Toyota Van, Toyota Minivan, Previa, Nissan Minivan, Quest, Mitsubishi Minivan, Vanagon/Camper.)
- (21) Large van (B150-B350, Sportsman, Royal, Maxiwagon, Ram, Tradesman, Voyager [83 and before], E150-E350, Econoline, Clubwagon, Chateau, G10-G30, Chevy Van, Beauville, Sport Van, G15-G35, Rally Van, Vandura.)
- (22) Step van or walk-in van ($\leq 4,500$ kgs GVWR)
- (23) Van based motorhome ($\leq 4,500$ kgs GVWR)
- (24) Van based school bus ($\leq 4,500$ kgs GVWR)
- (25) Van based other bus ($\leq 4,500$ kgs GVWR)
- (28) Other van type (Hi-Cube Van, Kary) (specify):
- (29) Unknown van type

Light Conventional Trucks (Pickup style cab, $\leq 4,500$ kgs GVWR)

- (30) Compact pickup (D50, Colt P/U, Ram 50, Dakota, Arrow Pickup [foreign], Ranger, Courier, S-10, T-10, LUV, S-15, T-15, Sonoma, Datsun/Nissan Pickup, P'up, Mazda Pickup, Toyota Pickup, Mitsubishi Pickup)
- (31) Large Pickup (Jeep Pickup, Comanche, Ram Pickup, D100-D350, W100-W350, F100-F350, C10-C35, K10-K35, R10-R35, V10-V35, Silverado, Sierra, R100-R500.)

- (32) Pickup with slide-in camper
- (33) Convertible pickup
- (39) Unknown pickup style light conventional truck type

Other Light Trucks ($\leq 4,500$ kgs GVWR)

- (40) Cab chassis based (includes rescue vehicles, light stake, dump, and tow truck)
- (41) Truck based panel
- (42) Light truck based motorhome (chassis mounted)
- (45) Other light conventional truck type
- (48) Unknown light truck type
- (49) Unknown light vehicle type (automobile, utility, van, or light truck)

OTHER VEHICLES

Buses (Excludes Van Based)

- (50) School bus (designed to carry students, not cross country or transit)
- (58) Other bus type (e.g., transit, intercity, bus based motorhome) (specify):
- (59) Unknown bus type

Medium/Heavy Trucks ($> 4,500$ kgs GVWR)

- (60) Step van ($> 4,500$ kgs GVWR)
- (61) Single unit straight truck ($4,500$ kgs $<$ GVWR $\leq 8,850$ kgs)
- (62) Single unit straight truck ($8,850$ kgs $<$ GVWR $\leq 12,000$ kgs)
- (63) Single unit straight truck ($> 12,000$ kgs GVWR)
- (64) Single unit straight truck, GVWR unknown
- (65) Medium/heavy truck based motorhome
- (67) Truck-tractor with no cargo trailer
- (68) Truck-tractor pulling one trailer
- (69) Truck-tractor pulling two or more trailers
- (70) Truck-tractor (unknown if pulling trailer)
- (78) Unknown medium/heavy truck type
- (79) Unknown truck type (light/medium/heavy)

Motored Cycles (Does Not Include All-Terrain Vehicles/Cycles)

- (80) Motorcycle
- (81) Moped (motorized bicycle)
- (82) Three-wheel motorcycle or moped
- (88) Other motored cycle (minibike, motorscooter) (specify):
- (89) Unknown motored cycle type

Other Vehicles

- (90) ATV (All-Terrain Vehicle) and ATC (All-Terrain Cycle)
- (91) Snowmobile
- (92) Farm equipment other than trucks
- (93) Construction equipment other than trucks
- (97) Other vehicle type
- (99) Unknown body type

OCCUPANT RELATED

16. Driver Presence in Vehicle

- (0) Driver not present
(1) Driver present
(9) Unknown

1

17. Number of Occupants This Vehicle

- (00-96) Code actual number of occupants for this vehicle
(97) 97 or more
(99) Unknown

3

18. Number of Occupant Forms Submitted

3

24. Rollover

- (0) No rollover (no overturning)

0*Rollover (primarily about the longitudinal axis)*

- (1) Rollover, 1 quarter turn only
(2) Rollover, 2 quarter turns
(3) Rollover, 3 quarter turns
(4) Rollover, 4 or more quarter turns (specify):

- (5) Rollover--end-over-end (i.e., primarily about the lateral axis)

- (9) Rollover (overturn), details unknown

VEHICLE WEIGHT ITEMS

19. Vehicle Curb Weight

Code weight to nearest
10 kilograms.

- (045) Less than 450 kilograms
(610) 6,100 kilograms or more
(999) Unknown

1,620

3,564 lbs X .4536 = 1,616 kgs

Source: [REDACTED]

20. Vehicle Cargo Weight

Code weight to nearest
10 kilograms.

- (000) Less than 5 kilograms
(450) 4,500 kilograms or more
(999) Unknown

0

____ lbs X .4536 = ____ kgs

RECONSTRUCTION DATA

21. Towed Trailing Unit

- (0) No towed unit
(1) Yes--towed trailing unit
(9) Unknown

0

22. Documentation of Trajectory Data for This Vehicle

- (0) No
(1) Yes

0

23. Post Collision Condition of Tree or Pole (For Highest Delta V)

- (0) Not collision (for highest delta V) with tree or pole
(1) Not damaged
(2) Cracked/sheared
(3) Tilted <45 degrees
(4) Tilted ≥45 degrees
(5) Uprooted tree
(6) Separated pole from base
(7) Pole replaced
(8) Other (specify):

0

(9) Unknown

OVERRIDE/UNDERRIDE (THIS VEHICLE)

25. Front Override/Underride (this Vehicle)

0

26. Rear Override/Underride (this Vehicle)

0

- (0) No override/underride, or not an end-to-end impact

Override (see specific CDC)

- (1) 1st CDC
(2) 2nd CDC
(3) Other not automated CDC (specify):

Underride (see specific CDC)

- (4) 1st CDC
(5) 2nd CDC
(6) Other not automated CDC (specify):

- (7) Medium/heavy truck or bus override

- (9) Unknown

HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

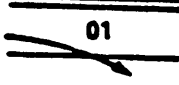


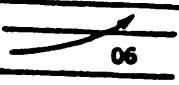
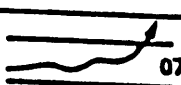
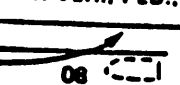
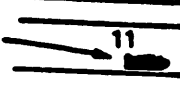

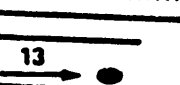
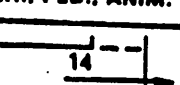
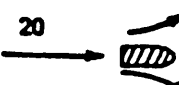
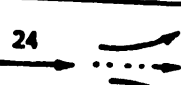
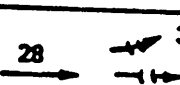
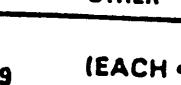
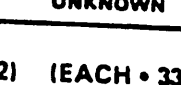
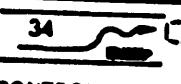
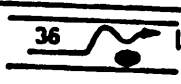
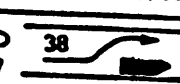
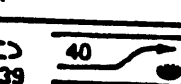
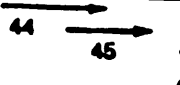


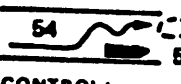
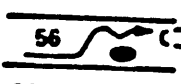
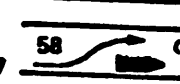
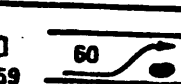

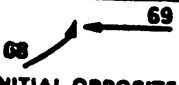
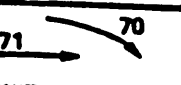

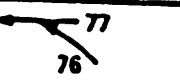
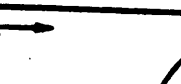
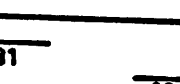
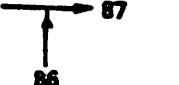

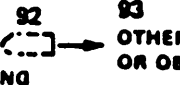

Values: (000)-(359) Code actual value
(997) Noncollision
(998) Impact with object
(999) Unknown

27. Heading Angle For This Vehicle

194

28. Heading Angle For Other Vehicle

289

Category	Configuration	ACCIDENT TYPES (Includes Intent)				
I. Single Driver	A. Right Roadside Departure	 01 DRIVE OFF ROAD	 02 CONTROL/ TRACTION LOSS	 03 AVOID COLLISION WITH VEH., PED., ANIM.	04 SPECIFICS OTHER	05 SPECIFICS UNKNOWN
	B. Left Roadside Departure	 06 DRIVE OFF ROAD	 07 CONTROL/ TRACTION LOSS	 08 AVOID COLLISION WITH VEH., PED., ANIM.	09 SPECIFICS OTHER	10 SPECIFICS UNKNOWN
	C. Forward Impact	 11 PARKED VEH.	 12 STA. OBJECT	 13 PEDESTRIAN/ ANIMAL	 14 END DEPARTURE	15 SPECIFICS OTHER 16 SPECIFICS UNKNOWN
II Same Trafficway Same Direction	D. Rear-End	 20 STOPPED 21, 22, 23	 22 SLOWER 25, 26, 27	 24 DECEL. 29, 30, 31	 26 SPECIFICS OTHER	 28 SPECIFICS UNKNOWN
	E. Forward Impact	 34 CONTROL/ TRACTION LOSS	 36 CONTROL/ TRACTION LOSS	 38 AVOID COLLISION WITH VEH.	 40 AVOID COLLISION WITH OBJECT	(EACH • 32) SPECIFICS OTHER (EACH • 33) SPECIFICS UNKNOWN
	F. Sideswipe Angle	 44 SPECIFICS OTHER	 46 SPECIFICS UNKNOWN	(EACH • 42) (EACH • 43) SPECIFICS OTHER SPECIFICS UNKNOWN		
III Same Trafficway Opposite Direction	G. Head-On	 50 LATERAL MOVE	(EACH • 52) SPECIFICS OTHER	(EACH • 53) SPECIFICS UNKNOWN		
	H. Forward Impact	 54 CONTROL/ TRACTION LOSS	 56 CONTROL/ TRACTION LOSS	 58 AVOID COLLISION WITH VEH.	 60 AVOID COLLISION WITH OBJECT	(EACH • 48) SPECIFICS OTHER (EACH • 49) SPECIFICS UNKNOWN
	I. Sideswipe Angle	 64 LATERAL MOVE	(EACH • 66) SPECIFICS OTHER	(EACH • 67) SPECIFICS UNKNOWN		
IV. Change Trafficway Vehicle Turning	J. Turn Across Path	 68 INITIAL OPPOSITE DIRECTIONS	 70 INITIAL SAME DIRECTIONS	 72 SPECIFICS OTHER	(EACH • 74) SPECIFICS UNKNOWN	(EACH • 75) SPECIFICS UNKNOWN
	K. Turn Into Path	 76 TURN INTO SAME DIRECTION	 78 TURN INTO OPPOSITE DIRECTIONS	 80 SPECIFICS OTHER	(EACH • 84) SPECIFICS UNKNOWN	(EACH • 85) SPECIFICS UNKNOWN
V. Intersecting Paths (Vehicle Damage)	L. Stray Paths	 86 SPECIFICS OTHER	 88 SPECIFICS UNKNOWN	(EACH • 90) SPECIFICS UNKNOWN		
VI. Miscellaneous	M. Backing Etc.	 92 BACKING VEH.	 93 OTHER VEH. OR OBJECT	98 Other Accident Type 99 Unknown Accident Type 00 No Impact		

29. Basis for Total Delta V (highest) 1*Delta V Calculated*

- (1) CRASH program—damage only routine
- (2) CRASH program—damage and trajectory routine
- (3) Missing vehicle algorithm

Delta V Not Calculated

- (4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.
- (5) All vehicles within scope (CDC applicable) of CRASH program but one of the collision conditions is beyond the scope of the CRASH program or other acceptable reconstruction technique, regardless of adequacy of damage data.
- (6) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available.

32. Lateral Component of Delta V ⊕ ⊖ ⊖ ⊖ 2 Highest
2.25 Nearest kph (highest)

_____ Nearest kph (secondary)

(NOTE: __000 means greater than
 -0.5 kph and less than +0.5 kph)
 (±160) ±159.5 kph and above
 (__999) Unknown

33. Energy Absorption ⊖ 2 ⊖ ⊖ 9 0 0
20,895.00 Nearest 100 joules (highest)

_____ Nearest 100 joules (secondary)

(NOTE: 0000 means less than 50 joules)
 (9997) 999,650 joules or more
 (9999) Unknown

COMPUTER GENERATED DELTA V

30. Total Delta V

13.75 Nearest kph (highest)

_____ Nearest kph (secondary)

(NOTE: 000 means less than
 0.5 kph)
 (160) 159.5 kph and above
 (999) Unknown

31. Longitudinal Component of Delta V

-13.03 Nearest kph (highest)

_____ Nearest kph (secondary)

(NOTE: __000 means greater than
 -0.5 kph and less than +0.5 kph)
 (±160) ±159.5 kph and above
 (__999) Unknown

34. Confidence In Reconstruction Program Results (For Highest Delta V) 3

- (0) No reconstruction
- (1) Collision fits model — results appear reasonable
- (2) Collision fits model — results appear high
- (3) Collision fits model — results appear low
- (4) Borderline reconstruction — results appear reasonable

35. Type of Vehicle Inspection 1

- (0) No inspection
- (1) Complete inspection
- (2) Partial inspection (specify): _____

36. Is this an AOPS Vehicle? 1

- (0) No
- (1) Yes - researcher determined
- (2) VIN determined air bag system
- (3) VIN determined automatic (passive) belts
- (4) VIN determined air bag and automatic (passive) belts

IS OLDMISS APPLICABLE FOR THIS VEHICLE? [] YES [X] NO

IF YES: IS A COMPLETED OLDMISS PROGRAM SUMMARY INCLUDED? [] YES [X] NO

37. Police Reported Other Drug Presence

- (0) No other drug(s) present
 (1) Yes [other drug(s) present]
 (7) Not reported
 (8) No driver present
 (9) Unknown

φ

38. Police Reported Drug Evaluation Classification (DEC) Test For Driver

- (0) No DEC process available or given
 (1) DEC process given, results known
 (2) DEC process given, results unknown
 (3) DEC process available, unknown if given
 (8) No driver present

φ

39. Other Drug Specimen Test Type For Driver

- (0) No specimen test given
 (1) Blood test
 (2) Urine test
 (3) Other specimen tests (specify):

(7) Unspecified specimen test

(8) No driver present

(9) Unknown if specimen test given

φ

DRUG EVALUATION CLASSIFICATION

OTHER DRUGS TEST RESULTS FOR DRIVER

	DEC Test Results	Specimen Test Results
Narcotic Drug	40. φ	41. φ
Depressant Drug	42. φ	43. φ
Stimulant Drug	44. φ	45. φ
Hallucinogen Drug	46. φ	47. φ
Cannabinoid Drug	48. φ	49. φ
Phencyclidine (PCP)	50. φ	51. φ
Inhalant Drug	52. φ	53. φ
Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash)	54. φ	55. φ

Codes For DEC Test Results

- (0) No DEC test given
 (1) Passed DEC test
 (2) Failed DEC test
 (3) DEC test given—results unknown
 (8) No driver present
 (9) Unknown if DEC test given

Codes for Specimen Test Results

- (0) No specimen test given
 (1) Drug not found in specimen
 (2) Drug found in specimen
 (7) Specimen test given, results unknown or not obtained
 (8) No driver present
 (9) Unknown if specimen test given

CODES FOR ROLLOVER INITIATION OBJECT CONTACTED

(00) No rollover

(01-30) — Vehicle Number

Noncollision

(31) Turn-over — fall-over

(33) Jackknife

Collision With Fixed Object

(41) Tree (≤ 10 cm in diameter)

(42) Tree (> 10 cm in diameter)

(43) Shrubbery or bush

(44) Embankment

(45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post

(50) Pole or post (≤ 10 cm in diameter)

(51) Pole or post (> 10 cm but ≤ 30 cm in diameter)

(52) Pole or post (> 30 cm in diameter)

(53) Pole or post (diameter unknown)

(54) Concrete traffic barrier

(55) Impact attenuator

(56) Other traffic barrier (includes guardrail)
(specify): _____

(57) Fence

(58) Wall

(59) Building

(60) Ditch or culvert

(61) Ground

(62) Fire hydrant

(63) Curb

(64) Bridge

(68) Other fixed object (specify): _____

(69) Unknown fixed object

Collision with Nonfixed Object

(71) Motor vehicle not in-transport

(76) Animal

(77) Train

(78) Trailer, disconnected in transport

(79) Object fell from vehicle in-transport

(88) Other nonfixed object (specify): _____

(89) Unknown nonfixed object

(98) Other event (specify): _____

(99) Unknown event or object

OTHER DATA

56. Driver's Zip Code

- (00000) Driver not present
 (00001) Driver not a resident of U.S. or territories
 Code actual 5-digit zip code
 (99999) Unknown

57. Driver's Race/Ethnic Origin

- (0) Driver not present
 (1) White (non-Hispanic)
 (2) Black (non-Hispanic)
 (3) White (Hispanic)
 (4) Black (Hispanic)
 (5) American Indian, Eskimo or Aleut
 (6) Asian or Pacific Islander
 (8) Other (specify):
 (9) Unknown

58. Vehicle Special Use (This Trip)

- (0) No special use
 (1) Taxi
 (2) Vehicle used as school bus
 (3) Vehicle used as other bus
 (4) Military
 (5) Police
 (6) Ambulance
 (7) Fire truck or car
 (8) Other (specify):
 (9) Unknown

ROLLOVER DATA

If GV07 (Body Type) \neq 1-49, leave GV59-GV63 blank.
 If GV24 (Rollover) = 0, then GV59-GV63 must equal 0.
 If GV24 = 9, then GV59-GV63 must equal 9.

59. Rollover Initiation Type

- (0) No rollover
 (1) Trip-over
 (2) Flip-over
 (3) Turn-over
 (4) Climb-over
 (5) Fall-over
 (6) Bounce-over
 (7) Collision with another vehicle
 (8) Other rollover initiation type specify:
 (9) Unknown rollover initiation type

60. Location of Rollover Initiation

- (0) No rollover
 (1) On roadway
 (2) On shoulder—paved
 (3) On shoulder—unpaved
 (4) On roadside or divided trafficway median
 (9) Unknown

61. Rollover Initiation Object Contacted

62. Location on Vehicle Where Initial Principal Tripping Force Is Applied

- (0) No rollover
 (1) Wheels/tires
 (2) Side plane
 (3) End plane
 (4) Undercarriage
 (5) Other location on vehicle (specify):

(8) Non-contact rollover forces (specify):

(9) Unknown

63. Direction of Initial Roll

- (0) No rollover
 (1) Roll right - primarily about the longitudinal axis
 (2) Roll left - primarily about the longitudinal axis
 (5) End-over-end (i.e., primarily about the lateral axis)
 (9) Unknown roll direction

PRECRASH DATA

64. Pre-Event Movement (Prior to Recognition of Critical Event)

- (01) Going straight
 (02) Slowing or stopping in traffic lane
 (03) Starting in traffic lane
 (04) Stopped in traffic lane
 (05) Passing or overtaking another vehicle
 (06) Disabled or parked in travel lane
 (07) Leaving a parking position
 (08) Entering a parking position
 (09) Turning right
 (10) Turning left
 (11) Making a U-turn
 (12) Backing up (other than for parking position)
 (13) Negotiating a curve
 (14) Changing lanes
 (15) Merging
 (16) Successful avoidance maneuver to a previous critical event
 (97) Other (specify):
 (98) No driver present
 (99) Unknown

PRECRASH DATA (Continued)

65. Critical Precrash Event

17*This Vehicle Loss of Control Due To:*

- (01) Blow out or flat tire
- (02) Stalled engine
- (03) Disabling vehicle failure (e.g., wheel fell off) (specify): _____
- (04) Non-disabling vehicle problem (e.g., hood flew up) (specify): _____
- (05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): _____
- (06) Traveling too fast for conditions
- (08) Other cause of control loss (specify): _____
- (09) Unknown cause of control loss

This Vehicle Traveling

- (10) Over the lane line on left side of travel lane
- (11) Over the lane line on right side of travel lane
- (12) Off the edge of the road on the left side
- (13) Off the edge of the road on the right side
- (14) End departure
- (15) Turning left at intersection
- (16) Turning right at intersection
- (17) Crossing over (passing through) intersection
- (19) Unknown travel direction

Other Motor Vehicle In Lane

- (50) Stopped
- (51) Traveling in same direction with lower speed (i.e., lower steady speed or decelerating)
- (52) Traveling in same direction with higher speed
- (53) Traveling in opposite direction
- (54) In crossover
- (55) Backing
- (59) Unknown travel direction of other motor vehicle in lane

Other Motor Vehicle Encroaching Into Lane

- (60) From adjacent lane (same direction)—over left lane line
- (61) From adjacent lane (same direction)—over right lane line
- (62) From opposite direction—over left lane line
- (63) From opposite direction—over right lane line
- (64) From parking lane
- (65) From crossing street, turning into same direction
- (66) From crossing street, across path
- (67) From crossing street, turning into opposite direction
- (68) From crossing street, intended path not known
- (70) From driveway, turning into same direction
- (71) From driveway, across path
- (72) From driveway, turning into opposite direction
- (73) From driveway, intended path not known
- (74) From entrance to limited access highway
- (78) Encroachment by other vehicle—details unknown

Pedestrian or Pedalcyclist, or Other Nonmotorist

- (80) Pedestrian in roadway
- (81) Pedestrian approaching roadway
- (82) Pedestrian—unknown location
- (83) Pedalcyclist or other nonmotorist in roadway (specify): _____
- (84) Pedalcyclist or other nonmotorist approaching roadway (specify): _____
- (85) Pedalcyclist or other nonmotorist—unknown location (specify): _____

Object or Animal

- (87) Animal in roadway
- (88) Animal approaching roadway
- (89) Animal—unknown location
- (90) Object in roadway
- (91) Object approaching roadway
- (92) Object—unknown location

(98) Other critical precrash event (specify): _____

(99) Unknown

For Corrective Actions Attempted see variable GV14 (Attempted Avoidance Manuever)

66. Precrash Stability After Avoidance Maneuver

1

- (0) No avoidance maneuver
- (1) Tracking
- (2) Skidding longitudinally—rotation less than 30 degrees
- (3) Skidding laterally—clockwise rotation
- (4) Skidding laterally—counterclockwise rotation
- (7) Other vehicle loss-of-control (specify): _____
- (8) No driver present
- (9) Precrash stability unknown

67. Precrash Directional Consequences of Avoidance Maneuver (Corrective Action)

2

- (0) No avoidance maneuver
- (1) Vehicle stayed in travel lane where avoidance maneuver was initiated
- (2) Vehicle stayed on roadway but left travel lane where avoidance maneuver was initiated
- (3) Vehicle stayed on roadway, not known if left travel lane where avoidance maneuver was initiated
- (4) Vehicle departed roadway
- (5) Avoidance maneuver initiated off roadway
- (8) No driver present
- (9) Directional consequences unknown

*** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35 = 0), ***
DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS.

*** IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE ***
THE EXTERIOR VEHICLE, INTERIOR VEHICLE,
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.

95

EXTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

3. Vehicle Number

Φ 12. Case Number - Stratum DSI-94-AB-2Φ

VEHICLE IDENTIFICATION

VIN 1 B 4 G H 4 4 3 5 R X X X X X X Model Year 9 4Vehicle Make (specify): DODGEVehicle Model (specify): GRAND CARAVAN (SE)

LOCATOR

Locate the end of the damage with respect to the vehicle longitudinal center line or bumper corner for end impacts or an undamaged axle for side impacts.

Specific Impact No.	Location of Direct Damage	Location of Field L
<u>Φ 1</u>	<u>ACROSS FRONT BUMPER BEG. OF LE-BC</u>	<u>FRONT BUMPER</u>

CRUSH PROFILE IN CENTIMETERS

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

Measure and document on the vehicle diagram the location of maximum crush.

Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

Use as many lines/columns as necessary to describe each damage profile. Cs 11.9" APART

Specific Impact Number	Plane of Impact C-Measurements	Direct Damage		Field L	C ₁	C ₂	C ₃	C ₄	C ₅	C ₆	D
		Width (CDC)	Max Crush								
<u>Φ 1</u>	<u>BUMPER</u>	<u>38.Φ"</u>		<u>59.6</u>	<u>4.75</u>	<u>2.Φ</u>	<u>.7</u>	<u>.6</u>	<u>1.7</u>	<u>5.6</u>	<u>11.Φ</u>
	<u>FREE SPACE</u>				<u>-5.5</u>	<u>-1.6</u>	<u>-.3</u>	<u>-.3</u>	<u>-1.6</u>	<u>-5.5</u>	
	<u>RESULTANT CRUSH</u>				<u>Φ</u>	<u>.4</u>	<u>Φ.4</u>	<u>Φ.3</u>	<u>Φ.1</u>	<u>Φ.1</u>	
<u>01</u>	<u>BUMPER</u>	<u>96.5</u>		<u>151.3</u>	<u>12.Φ</u>	<u>5.Φ</u>	<u>1.7</u>	<u>1.5</u>	<u>4.3</u>	<u>14.2</u>	<u>27.9</u>
	<u>FREE SPACE</u>				<u>13.9</u>	<u>4.Φ</u>	<u>0.7</u>	<u>0.7</u>	<u>4.Φ</u>	<u>13.9</u>	
	<u>RESULTANT CRUSH</u>				<u>Φ</u>	<u>1.0</u>	<u>1.0</u>	<u>0.8</u>	<u>.3</u>	<u>0.3</u>	
	<u>SINCE BUMPER WAS OFF @ TIME OF INSPECTION AND CRUSH MEASUREMENTS YIELDED LITTLE CRUSH, MEASUREMENTS WERE TAKEN @ BUMPER BRACKETS</u>										
<u>01</u>	<u>BUMPER BRACKETS</u>	<u>38.Φ</u>	<u>11.6</u>	<u>59.6</u>	<u>8.6</u>	<u>10.5</u>	<u>7.6</u>	<u>11.6</u>	<u>6.7</u>	<u>5.9</u>	<u>-11</u>
	<u>LESS BUMPER TAPER</u>		<u>.5</u>		<u>.5</u>	<u>.5</u>	<u>.5</u>	<u>.5</u>	<u>.5</u>	<u>.5</u>	
	<u>FREE SPACE BRACKETS</u>		<u>3.5</u>		<u>Φ</u>	<u>3.5</u>	<u>3.5</u>	<u>3.5</u>	<u>3.5</u>	<u>Φ</u>	
	<u>FREE SPACE</u>		<u>.3</u>		<u>5.5</u>	<u>1.6</u>	<u>.3</u>	<u>.3</u>	<u>1.6</u>	<u>5.5</u>	
	<u>RESULTANT CRUSH</u>		<u>7.3</u>		<u>2.6</u>	<u>4.4</u>	<u>3.3</u>	<u>7.3</u>	<u>1.1</u>	<u>Φ</u>	

1. Primary Sampling Unit Number		3. Vehicle Number	
2. Case Number - Stratum			

VEHICLE IDENTIFICATION

VIN _____ Model Year _____
Vehicle Make (specify): _____ Vehicle Model (specify): _____

LOCATOR

Locate the end of the damage with respect to the vehicle longitudinal center line or bumper corner for end impacts or an undamaged axle for side impacts.

Specific Impact No.	Location of Direct Damage	Location of Field L

CRUSH PROFILE IN CENTIMETERS

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

Measure and document on the vehicle diagram the location of maximum crush.

Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

Use as many lines/columns as necessary to describe each damage profile.

[illegible]

ORIGINAL SPECIFICATIONS WORK SHEET

Wheelbase	<u>119.3</u> inches	x 2.54 =	<u>303</u> cm
Overall Length	<u>192.9</u> inches	x 2.54 =	<u>494</u> cm
Maximum Width	<u>69.7</u> inches	x 2.54 =	<u>177</u> cm
Curb Weight	<u>3564</u> pounds	x .4536 =	<u>1620</u> kg
Average Track	<u>61.0</u> inches	x 2.54 =	<u>155</u> cm
Front Overhang	<u>35.5</u> inches	x 2.54 =	<u>905</u> cm
Rear Overhang	<u>39.8</u> inches	x 2.54 =	<u>101</u> cm
Undeformed End Width	^{ESTIMATED} <u>60.0</u> inches	x 2.54 =	<u>152</u> cm
Engine Size: cyl./displ.	<u>3000</u> cc	x .001 =	<u>3.0</u> L
	<u>183</u> CID	x .0164 =	<u>3.0</u> L

VEHICLE DAMAGE SKETCH

TIRE—WHEEL DAMAGE

a. Rotation physically restricted

b. Tire deflated

 RF 2
 LF 2
 RR 2
 LR 2

 RF 2
 LF 2
 RR 2
 LR 2

(1) Yes (2) No (8) NA (9) Unk.

ORIGINAL SPECIFICATIONS

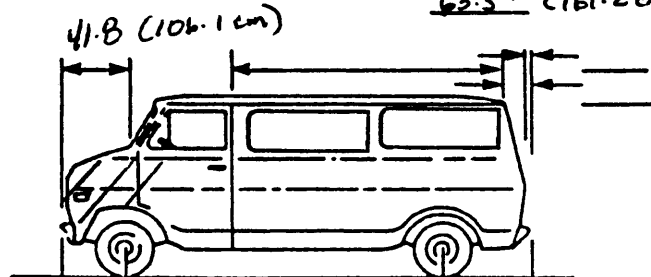
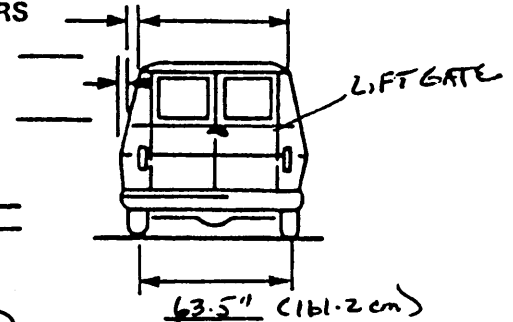
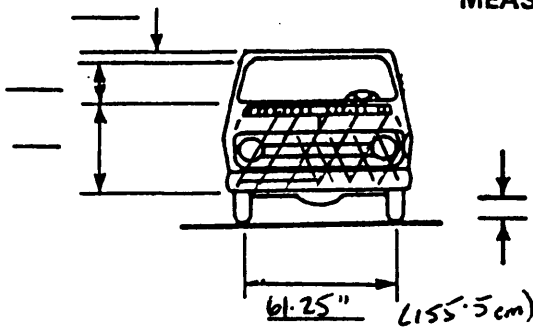
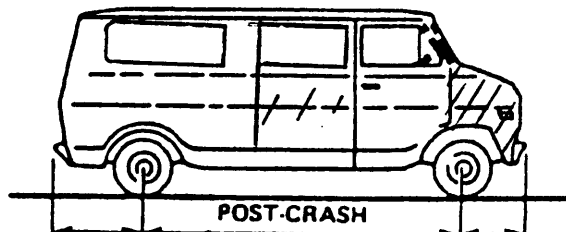
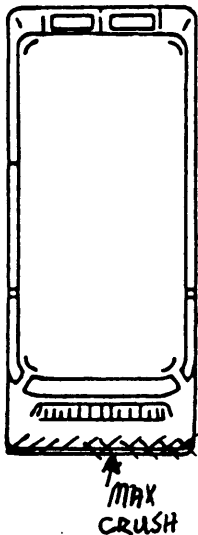
 Wheelbase 303 cm
 Overall Length 496 cm
 Maximum Width 177 cm
 Curb Weight 1620 kg
 Average Track 155 cm
 Front Overhang 85 cm
 Rear Overhang 101 cm
 Undeformed End Width 152 cm
 Engine Size: cyl./displ. V6/3.0 L
WHEEL STEER ANGLES
(For locked front wheels or displaced rear axles only)
 RF ± _____ °
 LF ± _____ °
 RR ± _____ °
 LR ± _____ °

Within ± 5 degrees

DRIVE WHEELS

☒ FWD ☐ RWD ☐ 4WDApproximate Cargo Weight 0 kg

TYPE OF TRANSMISSION

☐ Manual ☒ AutomaticMEASUREMENTS IN CENTIMETERS
(CENTIMETERS)
 Bumper corner 29.3" (74.4 cm) 119.9" (304.5 cm) 90.8" (231.1 cm) Bumper corner
 Stringline 34.0" (86.3 cm) 304.5" (773.1 cm) 99.4" (252.5 cm) Stringline

 Bumper corner 36.75" (93.3 cm) 119.8" (304.2 cm) 68.5" (174.1 cm) Bumper corner
 Stringline 40.5" (102.8 cm) 304.2" (772.8 cm) 82.8" (210.4 cm) Stringline

 DIRECT DAMAGE
 BUMPER 38.0" (96.5 cm)
 HOOD 35.5" (90.1 cm)

MAX CRUSH

NOTES: Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewalls, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

CODES FOR OBJECT CONTACTED

(99) Unknown event or object

100

COLLISION DEFORMATION CLASSIFICATION

HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Longitudinal or Lateral Location	(5) Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. <u>φ 1</u>	5. <u>φ 2</u>	6. <u>1 2</u>	7. <u>F</u>	8. <u>Y</u>	9. <u>E</u>	10. <u>W</u>	11. <u>φ 1</u>

Second Highest Delta "V"

12. _____ 13. _____ 14. _____ 15. _____ 16. _____ 17. _____ 18. _____ 19. _____

CRUSH PROFILE IN CENTIMETERS

The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN CENTIMETERS.)

HIGHEST DELTA "V"

20. L 21. C₁ C₂ C₃ C₄ C₅ C₆ 22. ± D

151 φ φ 7 φ 1 3 φ φ 9 φ 1 9 φ φ 3 φ φ φ ⊕ 7 28

Second Highest Delta "V"

23. L 24. C₁ C₂ C₃ C₄ C₅ C₆ 25. ± D

_____ + _____

26. Are CDCs Documented
but Not Coded on The
Automated File? φ
(0) No
(1) Yes

27. Researcher's Assessment
of Vehicle Disposition 1
(0) Not towed due to
vehicle damage
(1) Towed due to
vehicle damage
(9) Unknown

28. Original Wheelbase 3 φ 3
Code to the
nearest centimeter
(999) Unknown

119.3 inches X 2.54 = 3 φ 3 centimeters

29. Is This A Multi-Stage Manufactured Vehicle
And/Or A Certified Altered Vehicle?

- (0) No post manufacturer modifications
(1) Yes - post manufacturer modifications
(specify): _____

(Include photograph of CERTIFICATION
PLACARD in case report)

(9) Unknown if vehicle is modified

30. Fire Occurrence

(0) No fire

Yes, fire occurred

- (1) Minor
(2) Major
(9) Unknown

31. Origin of Fire

- (0) No fire
(1) Vehicle exterior (front, side, back, top)
(2) Exhaust system
(3) Fuel tank (and other fuel retention
system parts)
(4) Engine compartment
(5) Cargo/trunk compartment
(6) Instrument panel
(7) Passenger compartment area
(8) Other location (specify): _____

(9) Unknown

32. Type of Fuel Tank-1

33. Type of Fuel Tank-2

- (0) No fuel tank (electrical vehicle)
(1) Metallic
(2) Non-metallic
(9) Unknown

34. Fuel Tank-1 Location

35. Fuel Tank-2 Location

- (0) No fuel tank
(1) Aft of center of the rear wheels (rear axle)
centered
(2) Aft of center of the rear wheels (rear axle) left
side
(3) Aft of center of the rear wheels (rear axle)
right side
(4) Forward of center of the rear wheels (rear
axle) centered
(5) Forward of center of the rear wheels (rear
axle) left side
(6) Forward of center of the rear wheels (rear
axle) right side
(7) Over center of the rear wheels (rear axle)
(8) Other (specify): _____

(9) Unknown

36. Fuel Tank-1 Filler Cap Location

37. Fuel Tank-2 Filler Cap Location

- (0) No fuel tank
(1) On back plane
(2) Aft of center of the rear wheels (rear axle) on
left side plane
(3) Aft of center of the rear wheels (rear axle) on
right side plane
(4) Forward of center of the rear wheels (rear
axle) on left side plane
(5) Forward of center of the rear wheels (rear
axle) on right side plane
(6) Over the center of the rear wheels (rear axle)
on left side plane
(7) Over the center of the rear wheels (rear axle)
on right side plane
(8) Other (specify): _____
(9) Unknown

38. Fuel Tank-1 Damage

39. Fuel Tank-2 Damage

- (0) No fuel tank
(1) No damage to fuel tank
(2) Deformed, no seam failure
(3) Deformed, with a seam failure
(4) Punctured
(5) Lacerated (ripped)
(6) Abraded (scraped)
(7) Filler neck separation from the fuel tank
(8) Other damage (specify): _____

(9) Unknown

$$\frac{1}{\phi}$$

(0) No fuel tank
(1) No fuel leakage

- (2) Tank
- (3) Filler neck
- (4) Cap
- (5) Lines/pump/filter
- (6) Vent/emission recovery
- (8) Other (specify):

(9) Unknown

$$\frac{\phi}{\phi} \frac{1}{\phi}$$
$$\phi\phi$$

(00) No fuel tank
(01) Gasoline
(02) Diesel
(03) CNG (Compressed Natural Gas)
(04) LPG (Liquid Petroleum Gas) also known as Propane
(05) LNG (Liquid Natural Gas)
(06) Methanol (M100 or M85)
(07) Ethanol (E100 or E85)
(08) Other (Hydrogen or others) (specify):

(10) Lead Acid Battery
(11) Nickel-Iron Battery
(12) Nickel-Cadmium Battery
(13) Sodium Metal Chloride Battery
(14) Sodium Sulfur Battery
(18) Other (Specify):

(98) Other Hybrid (specify):

(99) Unknown fuel type

ϕ

- (1) Yes -- no damage to any tank or filler cap and no fuel system leakage
- (2) Yes -- no damage to any tank or filler cap but there is fuel system leakage (specify leakage location):

Type of tank _____
 Tank location _____
 Filler cap location _____
 Tank damage _____
 Location of leakage _____
 Type of fuel _____

(9) Unknown if more than two tanks

COMMENTS

This image shows a single sheet of white paper with horizontal black ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 18 lines visible. The paper appears to be a standard notebook or legal pad style.

***** STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED AND WAS NOT AN AOPS *****
(I.E., GV09=0 OR 9 AND GV36=0), DO NOT COMPLETE THE INTERIOR VEHICLE FORM.

National Highway Traffic Safety
Administration

INTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

2. Case Number - Stratum

DSI-94-AB-20

3. Vehicle Number

01

INTEGRITY

4. Passenger Compartment Integrity

(00) No integrity loss

00

Yes, Integrity Was Lost Through

(01) Windshield

(02) Door (side)

(03) Door/hatch (back door)

(04) Roof

(05) Roof glass

(06) Side window

(07) Rear window (backlight)

(08) Roof and roof glass

(09) Windshield and door (side)

(10) Windshield and roof

(11) Side and rear window (side window and backlight)

(12) Windshield and side window

(13) Door and side window

(98) Other combination of above (specify):

(99) Unknown

Door, Tailgate or Hatch Opening

5. LF 1 6. RF 1 7. LR 0 8. RR 1 9. TG/H 1

(0) No door/gate/hatch

(1) Door/gate/hatch remained closed and operational

(2) Door/gate/hatch came open during collision

(3) Door/gate/hatch jammed shut

(8) Other (specify):

(9) Unknown

Damage/Failure Associated with Door, Tailgate or Hatch
Opening in Collision. If IV05-IV09 \neq 2, Then code 0

10. LF 0 11. RF 0 12. LR 0 13. RR 0 14. TG/H 0

(0) No door/gate/hatch or door not opened

Door, Tailgate or Hatch Came Open During Collision

(1) Door operational (no damage)

(2) Latch/striker failure due to damage

(3) Hinge failure due to damage

(4) Door structure failure due to damage

(5) Door support (i.e., pillar, sill, roof side rail,
etc.) failure due to damage

(6) Latch/striker and hinge failure due to damage

(8) Other failure (specify):

(9) Unknown

GLAZING

Glazing Damage from Impact Forces

15. WS 0 16. LF 0 17. RF 0 18. LR 0 19. RR 0

20. BL 0 21. Roof 0 22. Other 0

(0) No glazing damage from impact forces

(2) Glazing in place and cracked from impact forces

(3) Glazing in place and holed from impact forces

(4) Glazing out-of-place (cracked or not) and not holed from
impact forces

(5) Glazing out-of-place and holed from impact forces

(6) Glazing disintegrated from impact forces

(7) Glazing removed prior to accident

(8) No glazing

(9) Unknown if damaged

Glazing Damage from Occupant Contact

23. WS 0 24. LF 0 25. RF 0 26. LR 0 27. RR 0

28. BL 0 29. Roof 0 30. Other 0

(0) No occupant contact to glazing or no glazing

(1) Glazing contacted by occupant but no glazing damage

(2) Glazing in place and cracked by occupant contact

(3) Glazing in place and holed by occupant contact

(4) Glazing out-of-place (cracked or not) by occupant
contact and not holed by occupant contact(5) Glazing out-of-place by occupant contact and holed by
occupant contact

(6) Glazing disintegrated by occupant contact

(9) Unknown if contacted by occupant

If No Glazing Damage *And* No Occupant Contact or No
Glazing, Then Code IV31 Through IV46 As 0

Type of Window/Windshield Glazing

31. WS 0 32. LF 0 33. RF 0 34. LR 0 35. RR 0

36. BL 0 37. Roof 0 38. Other 0

(0) No glazing contact and no damage, or no glazing

(1) AS-1 - Laminated

(2) AS-2 - Tempered

(3) AS-3 - Tempered-tinted

(4) AS-14 - Glass/Plastic

(8) Other (specify):

(9) Unknown

Window Precrash Glazing Status

39. WS 0 40. LF 0 41. RF 0 42. LR 0 43. RR 0

44. BL 0 45. Roof 0 46. Other 0

(0) No glazing contact and no damage, or no glazing

(1) Fixed

(2) Closed

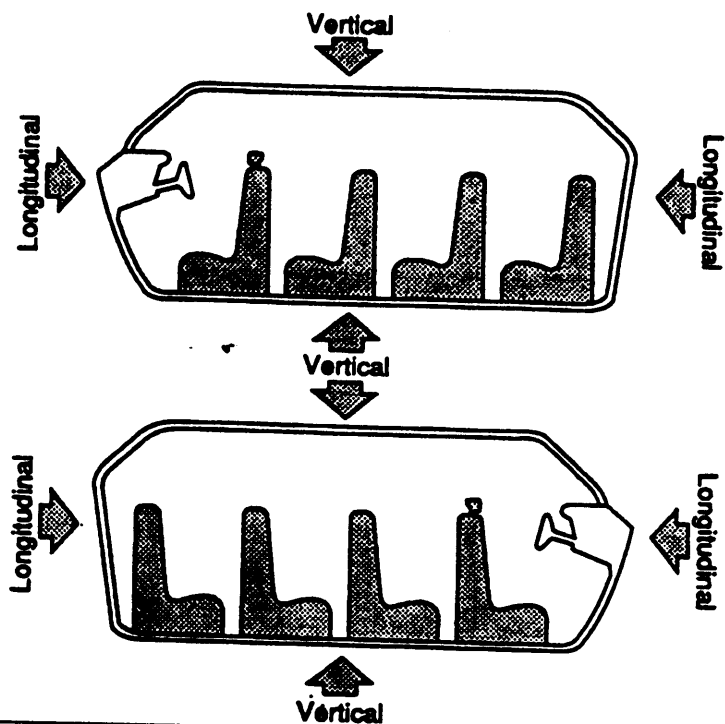
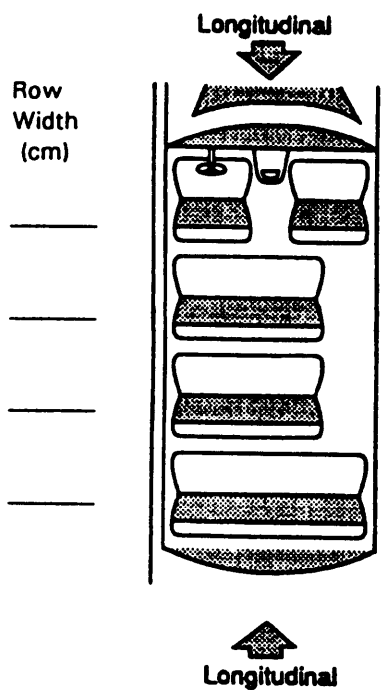
(3) Partially opened

(4) Fully opened

(9) Unknown

INTRUSION WORKSHEET

Note: Sketch intruded areas

[illegible]

Document no more than the 15 most severe intrusions

OCCUPANT AREA INTRUSION

Note: If no intrusions, leave variables IV47-IV86 blank.

	Location of Intrusion	Intruding Component	Magnitude of Intrusion	Dominant Crush Direction
1st	47. _____	48. _____	49. _____	50. _____
2nd	51. _____	52. _____	53. _____	54. _____
3rd	55. _____	56. _____	57. _____	58. _____
4th	59. _____	60. _____	61. _____	62. _____
5th	63. _____	64. _____	65. _____	66. _____
6th	67. _____	68. _____	69. _____	70. _____
7th	71. _____	72. _____	73. _____	74. _____
8th	75. _____	76. _____	77. _____	78. _____
9th	79. _____	80. _____	81. _____	82. _____
10th	83. _____	84. _____	85. _____	86. _____

LOCATION OF INTRUSION

Front Seat
 (11) Left
 (12) Middle
 (13) Right

Second Seat
 (21) Left
 (22) Middle
 (23) Right

Third Seat
 (31) Left
 (32) Middle
 (33) Right

Fourth Seat
 (41) Left
 (42) Middle
 (43) Right

(97) Catastrophic
 (98) Other enclosed area (specify)

(99) Unknown

INTRUDING COMPONENT

Interior Components

- (01) Steering assembly
- (02) Instrument panel left
- (03) Instrument panel center
- (04) Instrument panel right
- (05) Toe pan
- (06) A (A1/A2)-pillar
- (07) B-pillar
- (08) C-pillar
- (09) D-pillar
- (10) Door panel (side)
- (12) Roof (or convertible top)
- (13) Roof side rail
- (14) Windshield
- (15) Windshield header
- (16) Window frame
- (17) Floor pan (includes sill)
- (18) Backlight header
- (19) Front seat back
- (20) Second seat back
- (21) Third seat back
- (22) Fourth seat back
- (23) Fifth seat back
- (24) Seat cushion
- (25) Back door/panel (e.g., tailgate)
- (26) Other interior component (specify):

- (27) Side panel - forward of the A (A2)-pillar
- (28) Side panel - rear of the A (A2)-pillar

Exterior Components

- (30) Hood
- (31) Outside surface of this vehicle (specify):
- (32) Other exterior object in the environment (specify):
- (33) Unknown exterior object
- (97) Catastrophic
- (98) Intrusion of unlisted component(s) (specify):
- (99) Unknown

MAGNITUDE OF INTRUSION

- (1) ≥ 3 centimeters but < 8 centimeters
- (2) ≥ 8 centimeters but < 15 centimeters
- (3) ≥ 15 centimeters but < 30 centimeters
- (4) ≥ 30 centimeters but < 46 centimeters
- (5) ≥ 46 centimeters but < 61 centimeters
- (6) ≥ 61 centimeters
- (7) Catastrophic
- (9) Unknown

DOMINANT CRUSH DIRECTION

- (1) Vertical
- (2) Longitudinal
- (3) Lateral
- (7) Catastrophic
- (9) Unknown

STEERING RIM/SPOKE DEFORMATION

(All Measurements Are in Centimeters)

COMPARISON VALUE	—	DAMAGE VALUE	=	DEFORMATION
	—		=	
Ø	—	Ø	=	Ø
	—		=	
	—		=	

STEERING COLUMN**87. Steering Column Type**

- (1) Fixed column
 (2) Tilt column
 (3) Telescoping column
 (4) Tilt and telescoping column
 (8) Other column type (specify):

(9) Unknown

2**88. Blank**

(This variable is left blank so that numbering consistency can be maintained with the 1988-94 CDS.

X X**89. Blank**

(This variable is left blank so that numbering consistency can be maintained with the 1988-94 CDS.

X X X**90. Blank**

(This variable is left blank so that numbering consistency can be maintained with the 1988-94 CDS.

X X X**91. Blank**

(This variable is left blank so that numbering consistency can be maintained with the 1988-94 CDS.

X X X**92. Steering Rim/Spoke Deformation**

- Code actual measured deformation to the nearest centimeter
 (00) No steering rim deformation
 (01-14) Actual measured value in centimeters
 (15) 15 centimeters or more
 (98) Observed deformation cannot be measured
 (99) Unknown

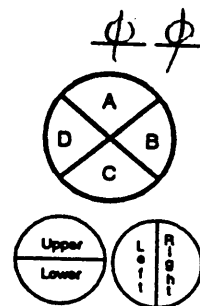
φ φ**93. Location of Steering Rim/Spoke Deformation****Quarter Sections**

- (01) Section A
 (02) Section B
 (03) Section C
 (04) Section D

Half Sections

- (05) Upper half of rim/spoke
 (06) Lower half of rim/spoke
 (07) Left half of rim/spoke
 (08) Right half of rim/spoke

- (09) Complete steering wheel collapse
 (10) Undetermined location
 (99) Unknown

**INSTRUMENT PANEL****94. Odometer Reading**φ φ 9,000

kilometers—Code to the nearest 1,000 kilometers

- (000) No odometer
 (001) Less than 1,500 kilometers
 (500) 499,500 kilometers or more
 (999) Unknown

5493 miles X 1.6093 = 8,839 kilometers

Source: Vehicle Inspection

95. Instrument Panel Damage from Occupant Contact?

- (0) No
 (1) Yes
 (9) Unknown

φ**96. Knee Bolsters Deformed from Occupant Contact?**

- (0) No
 (1) Yes
 (8) Not present
 (9) Unknown

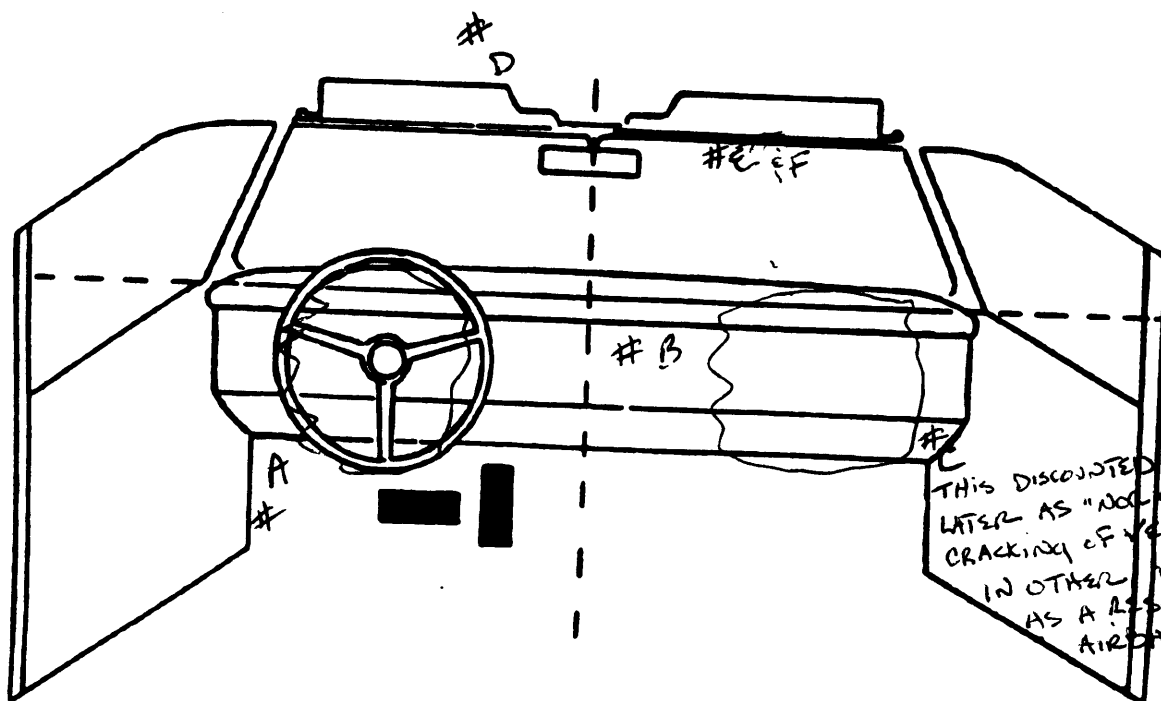
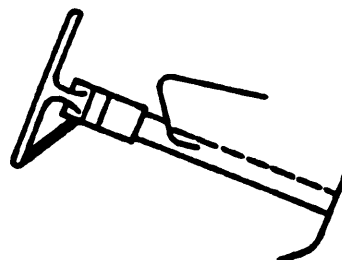
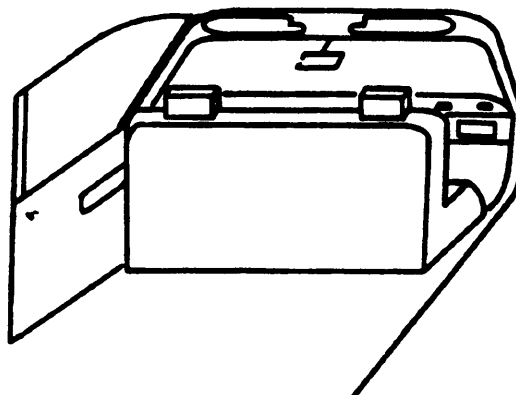
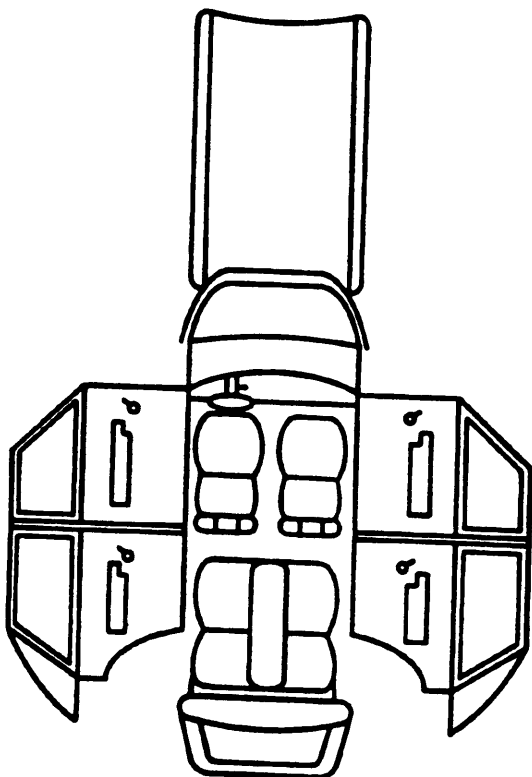
φ**97. Did Glove Compartment Door Open During Collision(s)?**

- (0) No
 (1) Yes
 (8) Not present
 (9) Unknown

φ

VEHICLE INTERIOR SKETCHES

Note area of ejection/entrapment



Sketch windshield contact(s) and the damaged area(s) on the instrument panel outline (e.g., radio, glove compartment, damage to instrument panel structure).
 Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.
 Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.

POINTS OF OCCUPANT CONTACT

Contact	Interior Component Contacted	Occupant No. If Known	Body Region If Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	45	11	FACE - CHEST	CHEST CONTACTED TO DRIVER	1
B	45	13	FACE	ABRASIONS TO FACE	1
C	11	—	—	DISCOUNTED SEE PAGE #17	—
D	43	11	HEAD	BROKEN SUN VISOR	3
E	54	13	HEAD	CIRCULAR INDENTATION - SKULL FX	2-
F	43	13	HEAD	INDENTATION - SKULL FX	2-
G					
H					
I					
J					
K					
L					
M					
N					

CODES FOR INTERIOR COMPONENTS

FRONT

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (16) Driver side air bag compartment cover
- (17) Passenger side air bag compartment cover
- (18) Windshield reinforced by exterior object (specify): _____
- (19) Other front object (specify): _____

LEFT SIDE

- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A (A1/A2)-pillar

- (23) Left B-pillar
- (24) Other left pillar (specify): _____
- (25) Left side window glass or frame
- (26) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (27) Other left side object (specify): _____
- (28) Left side window sill

RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A (A1/A2)-pillar
- (33) Right B-pillar
- (34) Other right pillar (specify): _____
- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B pillar, or roof side rail.
- (37) Other right side object (specify): _____
- (38) Right side window sill

INTERIOR

- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar attachment point
- (43) Other restraint system component (specify): _____
- (44) Head restraint system
- (45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)

- (46) Other occupants (specify): _____

- (47) Interior loose objects

- (48) Child safety seat (specify): _____

- (49) Other interior object (specify): _____

ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

FLOOR

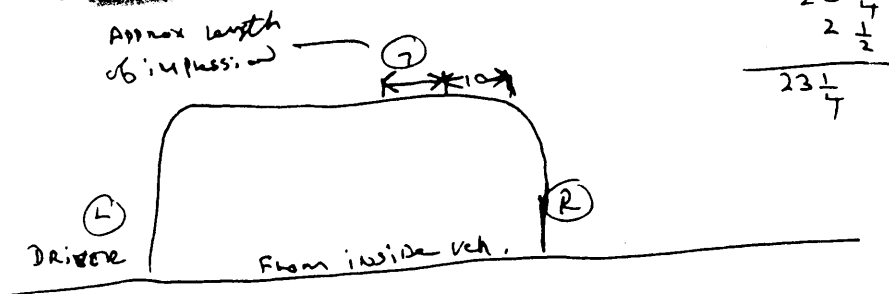
- (56) Floor (including toe pan)
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

REAR

- (60) Backlight (rear window)
- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify): _____

CONFIDENCE LEVEL OF CONTACT POINT

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown



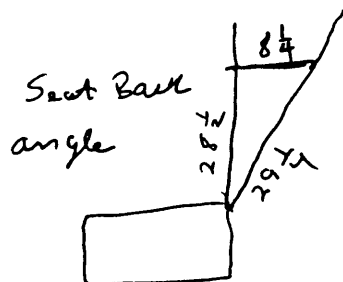
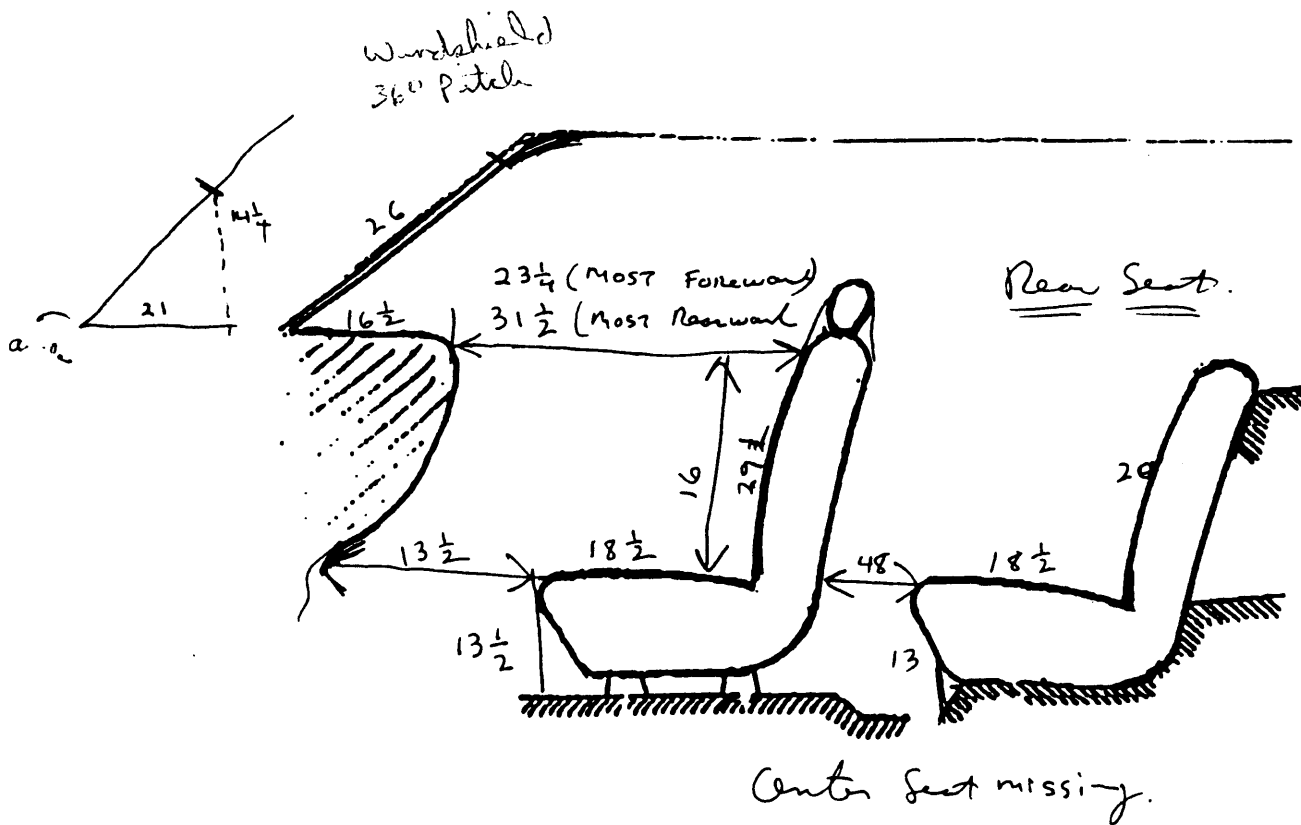
Case number:

Vehicle Code:

Seat Position: 1 + 3

AUXILIARY VEHICLE INTERIOR DIAGRAM

To be used when additional space is required to accommodate measurements not included on supplement D, or to provide further detail or additional sketches.



Recline to about 45°

AUTOMATIC RESTRAINTS

NOTES: Encode the data for each applicable front seat position. The attribute for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

AIR BAGS

		Left	Right
F I R S T	Availability/Function		
	Deployment		
	Failure		

Air Bag System Availability/Function

- (0) Not equipped/not available
(1) Air bag

Non-functional

- (2) Air bag disconnected (specify): _____

- (3) Air bag not reinstalled
(9) Unknown

Air Bag System Deployment

- (0) Not equipped/not available
(1) Air bag deployed during accident (as a result of impact)
(2) Air bag deployed inadvertently just prior to accident
(3) Air bag deployed, accident sequence undetermined
(4) Nondeployed
(5) Unknown if deployed
(6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
(9) Unknown

Are There Indications of Air Bag System Failure?

- (0) Not equipped/not available
(1) No
(2) Yes (specify): _____
(9) Unknown

AUTOMATIC BELTS

		Left	Right
F I R S T	Availability/Function	Ø	Ø
	Use	Ø	Ø
	Type	Ø	Ø
	Proper Use	Ø	Ø
	Failure Modes	Ø	Ø

Automatic (Passive) Belt System Availability/Function

- (0) Not equipped/not available
(1) 2 point automatic belts
(2) 3 point automatic belts
(3) Automatic belts - type unknown

Non-functional

- (4) Automatic belts destroyed or rendered inoperative
(9) Unknown

Automatic (Passive) Belt System Use

- (0) Not equipped/not available/destroyed or rendered inoperative
(1) Automatic belt in use
(2) Automatic belt not in use (manually disconnected, motorized track inoperative)
(3) Automatic belt use unknown
(9) Unknown

Automatic (Passive) Belt System Type

- (0) Not equipped/not available
(1) Non-motorized system
(2) Motorized system
(9) Unknown

Proper Use of Automatic (Passive) Belt System

- (0) Not equipped/not available/not used
(1) Automatic belt used properly
(2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly

- (3) Automatic shoulder belt worn under arm
(4) Automatic shoulder belt worn behind back
(5) Automatic belt worn around more than one person
(6) Lap portion of automatic belt worn on abdomen
(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): _____
(8) Other improper use of automatic belt system (specify): _____
(9) Unknown

Automatic (Passive) Belt Failure Modes During Accident

- (0) Not equipped/not available/not in use
(1) No automatic belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify): _____
(6) Broken retractor
(7) Combination of above (specify): _____
(8) Other automatic belt failure (specify): _____
(9) Unknown

MANUAL RESTRAINTS

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

If a Child safety seat is present, encode the data on the back of this page.

If the vehicle has automatic restraints available, encode the appropriate data on the back of the previous page.

		Left	Center	Right
FIRST	Availability	4	φ	4
	Evidence of usage	YES	φ	YES
	Used in this crash?	φφ	φφ	φφ
	Proper Use	φ	φ	φ
	Failure Modes	φ	φ	φ
SECOND	Availability	SEAT removed		
	Evidence of usage			
	Used in this crash?			
	Proper Use			
	Failure Modes			
OTHER	Availability	4	3	4
	Evidence of usage	NO	NO	YES
	Used in this crash?	φφ	φφ	φφ
	Proper Use	φ	φ	φ
	Failure Modes	φ	φ	φ

Manual (Active) Belt System Availability

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available - type unknown

Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify):

(9) Unknown

Manual (Active) Belt System Use

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperable (specify):

(02) Shoulder belt

(03) Lap belt

(04) Lap and shoulder belt

(05) Belt used - type unknown

(08) Other belt used (specify):

(12) Shoulder belt used with child safety seat

(13) Lap belt used with child safety seat

(14) Lap and shoulder belt used with child safety seat

(15) Belt used with child safety seat - type unknown

(18) Other belt used with child safety seat (specify):

(99) Unknown if belt used

Proper Use of Manual (Active) Belts

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):

(8) Other improper use of manual belt system (specify):

(9) Unknown

Manual (Active) Belt Failure Modes During Accident

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

(6) Broken retractor

(7) Combination of above (specify):

(8) Other manual belt failure (specify):

(9) Unknown

CHILD SAFETY SEAT FIELD ASSESSMENT

When a child safety seat is present enter the occupant's number in the first row and complete the column below the occupant's number using the codes listed below. Complete a column for each child safety seat present.

Occupant Number						
1. Type of Child Safety Seat						
2. Child Safety Seat Orientation						
3. Child Safety Seat Harness Usage						
4. Child Safety Seat Shield Usage						
5. Child Safety Seat Tether Usage						
6. Child Safety Seat Make/Model						

Specify Below for Each Child Safety Seat

1. Type of Child Safety Seat

- (0) No child safety seat
- (1) Infant seat
- (2) Toddler seat
- (3) Convertible seat
- (4) Booster seat
- (7) Other type child safety seat (specify):

- (8) Unknown child safety seat type
- (9) Unknown if child safety seat used

2. Child Safety Seat Orientation

- (00) No child safety seat
- Designed for Rear Facing for This Age/Weight
- (01) Rear facing
- (02) Forward facing
- (08) Other orientation (specify):
- (09) Unknown orientation

Designed for Forward Facing for This Age/Weight

- (11) Rear facing
- (12) Forward facing
- (18) Other orientation (specify):

- (19) Unknown orientation

Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight

- (21) Rear facing
- (22) Forward facing
- (28) Other orientation (specify):

- (29) Unknown orientation

- (99) Unknown if child safety seat used

3. Child Safety Seat Harness Usage

4. Child Safety Seat Shield Usage

5. Child Safety Seat Tether Usage

Note: Options Below Are Used for Variables 3-5.

- (00) No child safety seat

Not Designed with Harness/Shield/Tether

- (01) After market harness/shield/tether added, not used
- (02) After market harness/shield/tether used
- (03) Child safety seat used, but no after market harness/shield/tether added
- (09) Unknown if harness/shield/tether added or used

Designed With Harness/Shield/Tether

- (11) Harness/shield/tether not used
- (12) Harness/shield/tether used
- (19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

- (21) Harness/shield/tether not used
- (22) Harness/shield/tether used
- (29) Unknown if harness/shield/tether used

- (99) Unknown if child safety seat used

6. Child Safety Seat Make/Model (Specify make/model and occupant number)

HEAD RESTRAINTS/SEAT EVALUATION

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for these variables may be found at the bottom of the page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
FIRST	Head Restraint Type/Damage	1	φ	1
	Seat Type	φ1-	φφ	φ1-
	Seat Performance	1	φ	1
	Seat Orientation	1	φ	1
SECOND	Head Restraint Type/Damage	/	/	/
	Seat Type	/	/	/
	Seat Performance	/	/	/
	Seat Orientation	/	/	/
THIRD	Head Restraint Type/Damage	φ	φ	φ
	Seat Type	φ5	φ5	φ5
	Seat Performance	1	1	1
	Seat Orientation	1	1	1
OTHER	Head Restraint Type/Damage	/	/	/
	Seat Type	/	/	/
	Seat Performance	/	/	/
	Seat Orientation	/	/	/

Head Restraint Type/Damage by Occupant at This Occupant Position

- (0) No head restraints
- (1) Integral — no damage
- (2) Integral — damaged during accident
- (3) Adjustable — no damage
- (4) Adjustable — damaged during accident
- (5) Add-on — no damage
- (6) Add-on — damaged during accident
- (8) Other Specify: _____

(9) Unknown _____

Seat Type (this Occupant Position)

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify): _____

(10) Box mounted seat (i.e., van type) _____
 (99) Unknown _____

Seat Performance (this Occupant Position)

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed specify: _____
- (4) Seat tracks/anchors failed _____
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): _____

(7) Combination of above (specify): _____

(8) Other (specify): _____

(9) Unknown _____

Seat Orientation (this Occupant Position)

- (0) Occupant not seated or no seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify): _____

(9) Unknown _____

DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE (I.E., UNUSUAL OCCUPANT CONTACT PATTERN)

EJECTION/ENTRAPMENT DATA

Complete the following if the researcher has any indication that an occupant was either ejected from or entrapped in the vehicle. Code the appropriate data on the Occupant Assessment Form.

EJECTION No ☒ Yes ☐

Describe indications of ejection and body parts involved in partial ejection(s):

Occupant Number						
Ejection						
(Note on Vehicle Interior Sketch) Ejection Area						
Ejection Medium						
Medium Status						

Ejection

- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, Unknown degree
- (9) Unknown

Ejection Area

- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear

(7) Roof

(8) Other area (e.g., back of pickup, etc.) (specify):

(9) Unknown

Ejection Medium

- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify):

(5) Integral structure

(8) Other medium (specify):

(9) Unknown

Medium Status (Immediately Prior to Impact)

- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

ENTRAPMENT No ☒ Yes ☐

Describe entrapment mechanism:

Component(s):

(Note in vehicle interior diagram)

Interview Form

Case Number: DSI-AB-94-20
Vehicle Number: 01 Case Vehicle
Interviewee: Driver
Accident Date/Time: Fall, morning hours

Description of Accident

I was north on Street in the middle lane. I was approaching the intersection at about 16 KPH (10 MPH) when the car going in the opposite direction turned left right in front of me. I saw her coming and I turned to the right and braked. The other car just kept coming and I crashed into it.

My daughter was laying in between both of the front seats. I got out of the van and ran around to the right front door. I don't know if the door was damaged or locked, but I couldn't open it, so I ran back to my door (left front) and lifted her out of the van.

I was not wearing my seat belt, and my daughter next to me (right front) was not wearing her seat belt either. We were only a couple of blocks from home and I had told her to put the seat belt on several times. She was trying to put it on when the accident happened. I don't know if my daughter in the back (left rear) had her seat belt on, but we always wear them, so I think she was wearing hers. She was not injured.

I had a bruise to my chest. My daughter (right front occupant) had a deep crevice to the top of her head.

COMMENTS ON PERFORMANCE OF AIRBAG?: The driver remembers a smell. She does not remember a noise. She saw the airbag coming at her when it deployed.

The driver of Vehicle 1 feels that the airbag is what struck the right front occupant causing her to override the airbag and strike the windshield. She was further told by the police that if the right front occupant had been belted, she would have been struck very hard by the airbag and seriously injured.

The driver of Vehicle 1 feels that airbags are unsafe and can cause serious injuries. She wants warning labels attached to airbag-equipped vehicles warning occupants of such dangers.

Specific Questions

Was the sun visor on driver's side damaged prior to the accident? No it was fine before the accident.

Do you remember striking the driver's sun visor? No I didn't strike it.

Did you sustain any injuries to your head, face? None.

Did the right front passenger strike you, did you see her on your side? No.

Was the right front passenger wearing sunglasses? Yes they were knocked off and broken.

What type of clothing was the right front passenger wearing? A heavy coat and a backpack.

Seat Position	Left front	Right front	Left rear
Age/Sex	37/Female	4/Female	11/Female
Height/Weight	63"/118 lbs.	41"/35 lbs.	58"/60 lbs.
Posture	Normal upright	Normal upright, trying to put her lap/shoulder restraints	Unknown
Ejection	No	No	No
Entrapment	No	No	No
Restraint Type	Manual: Lap/shoulder Automatic: Airbag	Manual: Lap/shoulder Automatic: Airbag	Manual: Lap/shoulder
Usage/Failures	None/None	None/None	None/None
Treatment	Paramedics, private physician	DOA, paramedics on scene, emergency room	paramedics, emergency room
Time in hospital	None	N/A	None
Lost working days	74 days +, she has been off of work since accident	N/A	N/A
Glasses or Contact Lenses? Y/N	None	Wearing sunglasses that were knocked off and broken	None

National Highway Traffic Safety
AdministrationOCCUPANT ASSESSMENT FORM
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

OCCUPANT'S SEATING

1. Primary Sampling Unit Number

2. Case Number - Stratum DSI-94-AB-2φ3. Vehicle Number φ 14. Occupant Number φ 1

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age 37

Code actual age at time of accident.

(00) Less than one year old (specify by month):

(97) 97 years and older

(99) Unknown

6. Occupant's Sex

(1) Male

(2) Female

(9) Unknown

7. Occupant's Height

Code actual height to the nearest
centimeter.

(999) Unknown

63 inches X 2.54 = 16φ centimeters

8. Occupant's Weight

Code actual weight to the nearest
kilogram.

(999) Unknown

118 pounds X .4536 = φ54 kilograms

9. Occupant's Role

(1) Driver

(2) Passenger

(9) Unknown

10. Occupant's Seat Position

11
Front Seat

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify):

(15) On or in the lap of another occupant

Second Seat

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify):

(25) On or in the lap of another occupant

Third Seat

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify):

(35) On or in the lap of another occupant

Fourth Seat

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify):

(45) On or in the lap of another occupant

(97) In or on unenclosed area

(98) Other seat (specify):

(99) Unknown

11. Occupant's Posture

(0) Normal posture

Abnormal posture

(1) Kneeling or standing on seat

(2) Lying on or across seat

(3) Kneeling, standing or sitting in front of seat

(4) Sitting sideways or turned to talk with another
occupant or to look out a rear window

(5) Sitting on a console

(6) Lying back in a reclined seat position

(7) Bracing with feet or hands on a surface in front
of seat

(8) Other abnormal posture (specify):

(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

 ϕ

13. Ejection Area

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)
(specify): _____
- (9) Unknown

 ϕ

14. Ejection Medium

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): _____
- (5) Integral structure
- (8) Other medium (specify): _____
- (9) Unknown

 ϕ

15. Medium Status (Immediately Prior To Impact)

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

 ϕ

16. Entrapment

(NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)

- (0) Not entrapped
- (1) Entrapped
- (9) Unknown

 ϕ

RESTRAINT SYSTEM EVALUATION

17. Manual (Active) Belt System Availability

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify): _____

(9) Unknown

18. Manual (Active) Belt System Use

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify): _____

(02) Shoulder belt

(03) Lap belt

(04) Lap and shoulder belt

(05) Belt used—type unknown

(08) Other belt used (specify): _____

(12) Shoulder belt used with child safety seat

(13) Lap belt used with child safety seat

(14) Lap and shoulder belt used with child safety seat

(15) Belt used with child safety seat—type unknown

(18) Other belt used with child safety seat (specify): _____

(99) Unknown if belt used

19. Proper Use of Manual (Active) Belts

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____

(8) Other improper use of manual belt system (specify): _____

(9) Unknown

20. Manual (Active) Belt Failure Modes During Accident

- (0) No manual belt used
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): _____

(6) Broken retractor

(7) Combination of above (specify): _____

(8) Other manual belt failure (specify): _____

(9) Unknown

21. Air Bag System Availability/Function

- (0) Not equipped/not available
- (1) Air bag

Non-functional

(2) Air bag disconnected (specify): _____

(3) Air bag not reinstalled

(9) Unknown

22. Air Bag System Deployment

- (0) Not equipped/not available
- (1) Air bag deployed during accident (as a result of impact)
- (2) Air bag deployed inadvertently just prior to accident
- (3) Air bag deployed, accident sequence undetermined
- (4) Nondeployed
- (5) Unknown if deployed
- (6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (9) Unknown

23. Are There Indications of Air Bag System Failure?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify): _____

(9) Unknown

Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts

24. Police Reported Restraint Use

- (0) None used
- (1) Police did not indicate restraint use
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt used, type not specified
- (6) Child safety seat
- (7) Other or automatic restraint (specify): _____

(8) Restrained, type unknown

(9) Police indicated "unknown"

HEAD RESTRAINT AND SEAT EVALUATION

25. Head Restraint Type/Damage by Occupant
at This Occupant Position 1

- (0) No head restraints
- (1) Integral—no damage
- (2) Integral—damaged during accident
- (3) Adjustable—no damage
- (4) Adjustable—damaged during accident
- (5) Add-on—no damage
- (6) Add-on—damaged during accident
- (8) Other (specify): _____
- (9) Unknown

26. Seat Type (this Occupant Position) 01

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify): _____
- (10) Box mounted seat (i.e., van type)
- (99) Unknown

27. Seat Performance (this Occupant Position) 1

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed (specify): _____
- (4) Seat track/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): _____
- (7) Combination of above (specify): _____
- (8) Other (specify): _____
- (9) Unknown

CHILD SAFETY SEAT

28. Child Safety Seat Make/Model

(000) No child safety seat

Applicable codes are found in your NASS CDS
Data Collection, Coding and Editing

(950) Built-in child safety seat

(997) Other make/model (specify):

(998) Unknown make/model

(999) Unknown if child safety seat used

29. Type of Child Safety Seat

(0) No child safety seat

(1) Infant seat

(2) Toddler seat

(3) Convertible seat

(4) Booster seat

(7) Other type child safety seat (specify):

(8) Unknown child safety seat type

(9) Unknown if child safety seat used

30. Child Safety Seat Orientation

(00) No child safety seat

Designed for Rear Facing for This Age/Weight

(01) Rear facing

(02) Forward facing

(08) Other orientation (specify):

(09) Unknown orientation

Designed For Forward Facing for This Age/Weight

(11) Rear facing

(12) Forward facing

(18) Other orientation (specify):

(19) Unknown orientation

*Unknown Design or Orientation For This
Age/Weight, or Unknown Age/Weight*

(21) Rear facing

(22) Forward facing

(28) Other orientation (specify):

(29) Unknown orientation

(99) Unknown if child safety seat used

31. Child Safety Seat Harness Usage

32. Child Safety Seat Shield Usage

33. Child Safety Seat Tether Usage

Note: Options below applicable to
Variables OA31-OA33.

(00) No child safety seat

Not Designed With Harness/Shield/Tether(01) After market harness/shield/tether
added, not used

(02) After market harness/shield/tether used

(03) Child safety seat used, but no after market
harness/shield/tether added(09) Unknown if harness/shield/tether
added or used*Designed With Harness/Shield/Tether*

(11) Harness/shield/tether not used

(12) Harness/shield/tether used

(19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

(21) Harness/shield/tether not used

(22) Harness/shield/tether used

(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

INJURY CONSEQUENCES34. Injury Severity (Police Rating) 1

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

35. Treatment - Mortality 4

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):

Nonfatal

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (8) Treatment - other (specify):

(9) Unknown

36. Type Of Medical Facility (for Initial Treatment) 2

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):

(9) Unknown

37. Hospital Stay φ φ

(00) Not Hospitalized

Code the number of days (up through 60) that the occupant stayed in hospital.

- (61) 61 days or more
- (99) Unknown

38. Working Days Lost 61

- Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

STOP - GO TO VARIABLE 44 ON PAGE 7**VARIABLES 39 THROUGH 43 ARE COMPLETED BY THE ZONE CENTER**39. Time to Death φ φ

- Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)
- (00) Not fatal
- (96) Fatal - ruled disease
- (99) Unknown

40. 1st Medically Reported Cause of Death φ φ41. 2nd Medically Reported Cause of Death φ φ42. 3rd Medically Reported Cause of Death φ φ

- Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death
- (00) Not fatal or no additional causes
- (96) Mode of death given but specific injuries are not linked to cause of death. (specify):

(97) Other result (includes fatal ruled disease) (specify):

(99) Unknown

43. Number of Recorded Injuries for This Occupant φ 1

- Code the actual number of injuries recorded for this occupant.
- (00) No recorded injuries
- (97) Injured, details unknown
- (99) Unknown if injured

AUTOMATIC BELT SYSTEM**44. Automatic (Passive) Belt System Availability/Function** ☒

- (0) Not equipped/not available
 (1) 2 point automatic belts
 (2) 3 point automatic belts
 (3) Automatic belts - type unknown

Non-functional

- (4) Automatic belts destroyed or rendered inoperative
 (9) Unknown

45. Automatic (Passive) Belt System Use ☒

- (0) Not equipped/not available/destroyed or rendered inoperative
 (1) Automatic belt in use
 (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):
 (3) Automatic belt use unknown
 (9) Unknown

46. Automatic (Passive) Belt System Type ☒

- (0) Not equipped/not available
 (1) Non-motorized system
 (2) Motorized system
 (9) Unknown

47. Proper Use of Automatic (Passive) Belt System ☒

- (0) Not equipped/not available/not used
 (1) Automatic belt used properly
 (2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly

- (3) Automatic shoulder belt worn under arm
 (4) Automatic shoulder belt worn behind back
 (5) Automatic belt worn around more than one person
 (6) Lap portion of automatic belt worn on abdomen
 (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):
 (8) Other improper use of automatic belt system (specify):
 (9) Unknown

48. Automatic (Passive) Belt Failure Modes During Accident ☒

- (0) Not equipped/not available/not in use
 (1) No automatic belt failure(s)
 (2) Torn webbing (stretched webbing not included)
 (3) Broken buckle or latchplate
 (4) Upper anchorage separated
 (5) Other anchorage separated (specify):
 (6) Broken retractor
 (7) Combination of above (specify):
 (8) Other automatic belt failure (specify):
 (9) Unknown

49. Seat Orientation (this Occupant Position) ☒

- (0) Occupant not seated or no seat
 (1) Forward facing seat
 (2) Rear facing seat
 (3) Side facing seat (inward)
 (4) Side facing seat (outward)
 (8) Other (specify):
 (9) Unknown

Check the Primary Source Used In Determining Belt Use.

- [] Not equipped/not available/destroyed or rendered inoperative
 [] Vehicle inspection
☒ Official injury data
☒ Driver/occupant interview
 [] Other (specify):

[] Unknown if belt used

ARE ALL APPLICABLE MEDICAL RECORDS INCLUDED
 WITH INITIAL SUBMISSION?

NO [] YES ☒

UPDATE CANDIDATE?

NO ☒ YES []

STOP - VARIABLES 50 THROUGH 53 ARE COMPLETED BY THE ZONE CENTER**TRAUMA DATA**

50. Glasgow Coma Scale (GCS) Score φ 2
(at Medical Facility)
(00) Not injured
(01) Injured - not treated at medical facility
(02) No GCS Score at medical facility
(03-15) Code the actual value of the initial GCS Score recorded at medical facility.
(97) Injured, details unknown
(99) Unknown if injured
51. Was the Occupant Given Blood? 1
(1) No - blood not given
(2) Yes - blood given
(specify units): _____
(9) Unknown if blood given
52. Arterial Blood Gases (ABG) - HCO_3 φ 1
(00) Not injured
(01) Injured, ABGs not measured or reported
(02-50) Code the actual value of the HCO_3
(96) ABGs reported, HCO_3 unknown
(97) Injured, details unknown
(99) Unknown if injured

BELT USE DETERMINATION

53. Primary Source of Belt Use Determination 2
(0) Not equipped/not available/destroyed or rendered inoperative
(1) Vehicle inspection
(2) Official injury data
(3) Driver/occupant interview
(8) Other (specify): _____
(9) Unknown if belt used

National Highway Traffic Safety
Administration

OCCUPANT INJURY FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

3. Vehicle Number

2. Case Number - Stratum DSI-94-AB-24

4. Occupant Number

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

	Source of Injury Data	Body Region	A.I.S. - 90			Level of Injury	A.I.S. [*] Severity	Aspect	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number
			Type of Anatomic Structure	Specific Anatomic Structure								
1st	5. <u>7</u>	6. <u>4</u>	7. <u>9</u>	8. <u>04</u>	9. <u>02</u>	10. <u>1</u>	11. <u>4</u>	12. <u>45</u>	13. <u>1</u>	14. <u>1</u>	15. <u>00</u>	
2nd	16. <u> </u>	17. <u> </u>	18. <u> </u>	19. <u> </u>	20. <u> </u>	21. <u> </u>	22. <u> </u>	23. <u> </u>	24. <u> </u>	25. <u> </u>	26. <u> </u>	
3rd	27. <u> </u>	28. <u> </u>	29. <u> </u>	30. <u> </u>	31. <u> </u>	32. <u> </u>	33. <u> </u>	34. <u> </u>	35. <u> </u>	36. <u> </u>	37. <u> </u>	
4th	38. <u> </u>	39. <u> </u>	40. <u> </u>	41. <u> </u>	42. <u> </u>	43. <u> </u>	44. <u> </u>	45. <u> </u>	46. <u> </u>	47. <u> </u>	48. <u> </u>	
5th	49. <u> </u>	50. <u> </u>	51. <u> </u>	52. <u> </u>	53. <u> </u>	54. <u> </u>	55. <u> </u>	56. <u> </u>	57. <u> </u>	58. <u> </u>	59. <u> </u>	
6th	60. <u> </u>	61. <u> </u>	62. <u> </u>	63. <u> </u>	64. <u> </u>	65. <u> </u>	66. <u> </u>	67. <u> </u>	68. <u> </u>	69. <u> </u>	70. <u> </u>	
7th	71. <u> </u>	72. <u> </u>	73. <u> </u>	74. <u> </u>	75. <u> </u>	76. <u> </u>	77. <u> </u>	78. <u> </u>	79. <u> </u>	80. <u> </u>	81. <u> </u>	
8th	82. <u> </u>	83. <u> </u>	84. <u> </u>	85. <u> </u>	86. <u> </u>	87. <u> </u>	88. <u> </u>	89. <u> </u>	90. <u> </u>	91. <u> </u>	92. <u> </u>	
9th	93. <u> </u>	94. <u> </u>	95. <u> </u>	96. <u> </u>	97. <u> </u>	98. <u> </u>	99. <u> </u>	100. <u> </u>	101. <u> </u>	102. <u> </u>	103. <u> </u>	
10th	104. <u> </u>	105. <u> </u>	106. <u> </u>	107. <u> </u>	108. <u> </u>	109. <u> </u>	110. <u> </u>	111. <u> </u>	112. <u> </u>	113. <u> </u>	114. <u> </u>	

SOURCE OF INJURY DATA

OFFICIAL

- (1) Autopsy records with or without hospital/medical records
- (2) Hospital/medical records other than emergency room (e.g., discharge summary)
- (3) Emergency room records only (including associated X-rays or other lab reports)
- (4) Private physician, walk-in or emergency clinic

UNOFFICIAL

- (5) Lay coroner report
- (6) E.M.S. personnel
- (7) Interviewee
- (8) Other source (specify): _____

- (9) Police

INJURY SOURCE

FRONT

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (16) Driver side air bag compartment cover
- (17) Passenger side air bag compartment cover
- (18) Windshield reinforced by exterior object (specify): _____
- (19) Other front object (specify): _____

LEFT SIDE

- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A (A1/A2)-pillar
- (23) Left B-pillar
- (24) Other left pillar (specify): _____

- (25) Left side window glass or frame
- (26) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (27) Other left side object (specify): _____

- (28) Left side window sill

RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
 - (31) Right side hardware or armrest
 - (32) Right A (A1/A2)-pillar
 - (33) Right B-pillar
 - (34) Other right pillar (specify): _____
 - (35) Right side window glass or frame
 - (36) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
 - (37) Other right side object (specify): _____
 - (38) Right side window sill
- ### INTERIOR
- (40) Seat, back support
 - (41) Belt restraint webbing/buckle
 - (42) Belt restraint B-pillar or door frame attachment point
 - (43) Other restraint system component (specify): _____
 - (44) Head restraint system
 - (45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)
 - (46) Other occupants (specify): _____
 - (47) Interior loose objects
 - (48) Child safety seat (specify): _____
 - (49) Other interior object (specify): _____

ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

FLOOR

- (56) Floor (including toe pan)
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

REAR

- (60) Backlight (rear window)

- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify): _____

EXTERIOR OF OCCUPANT'S VEHICLE

- (65) Hood
- (66) Outside hardware (e.g., outside mirror, antenna)
- (67) Other exterior surface or tires (specify): _____
- (68) Unknown exterior objects

EXTERIOR OF OTHER MOTOR VEHICLE

- (70) Front bumper
- (71) Hood edge
- (72) Other front of vehicle (specify): _____

- (73) Hood

- (74) Hood ornament
- (75) Windshield, roof rail, A-pillar
- (76) Side surface
- (77) Side mirrors
- (78) Other side protrusions (specify): _____

- (79) Rear surface

- (80) Undercarriage
- (81) Tires and wheels
- (82) Other exterior of other motor vehicle (specify): _____

- (83) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

- (84) Ground
- (85) Other vehicle or object (specify): _____
- (86) Unknown vehicle or object

NONCONTACT INJURY

- (90) Fire in vehicle
- (91) Flying glass
- (92) Other noncontact injury source (specify): _____
- (93) Air bag exhaust gases
- (97) Injured, unknown source

INJURY SOURCE CONFIDENCE LEVEL

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

DIRECT/INDIRECT INJURY

- (1) Direct contact injury
- (2) Indirect contact injury
- (3) Noncontact injury
- (7) Injured, unknown source

OCCUPANT INJURY CLASSIFICATION

Body Region

- (1) Head
- (2) Face
- (3) Neck
- (4) Thorax
- (5) Abdomen
- (6) Spine
- (7) Upper Extremity
- (8) Lower Extremity
- (9) Unspecified

Type of Anatomic Structure

- (1) Whole Area
- (2) Vessels
- (3) Nerves
- (4) Organs (includes muscles/ligaments)
- (5) Skeletal (includes joints)
- (6) Head - LOC
- (9) Skin

Specific Anatomic Structure

Whole Area

- (02) Skin - Abrasion
- (04) Skin - Contusion
- (06) Skin - Laceration
- (08) Skin - Avulsion
- (10) Amputation
- (20) Burn
- (30) Crush
- (40) Degloving
- (50) Injury - NFS
- (90) Trauma, other than mechanical

Head - LOC

- (02) Length of LOC
- (04, 06, 08) Level of Consciousness
- (10) Concussion

Spine

- (02) Cervical
- (04) Thoracic
- (06) Lumbar

Vessels, Nerves, Organs, Bones,

Joint are assigned consecutive two digit numbers beginning with 02

Level of Injury

Specific injuries are assigned consecutive two-digit numbers beginning with 02.

To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.

Abbreviated Injury Scale

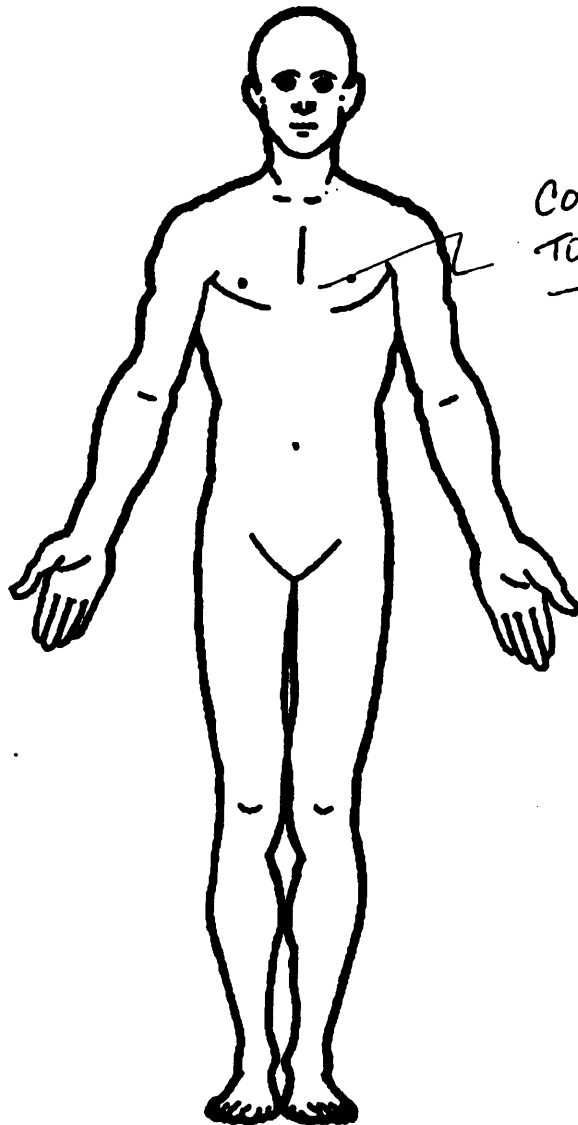
- (1) Minor injury
- (2) Moderate injury
- (3) Serious injury
- (4) Severe injury
- (5) Critical injury
- (6) Maximum (untreatable)
- (7) Injured, unknown severity

Aspect

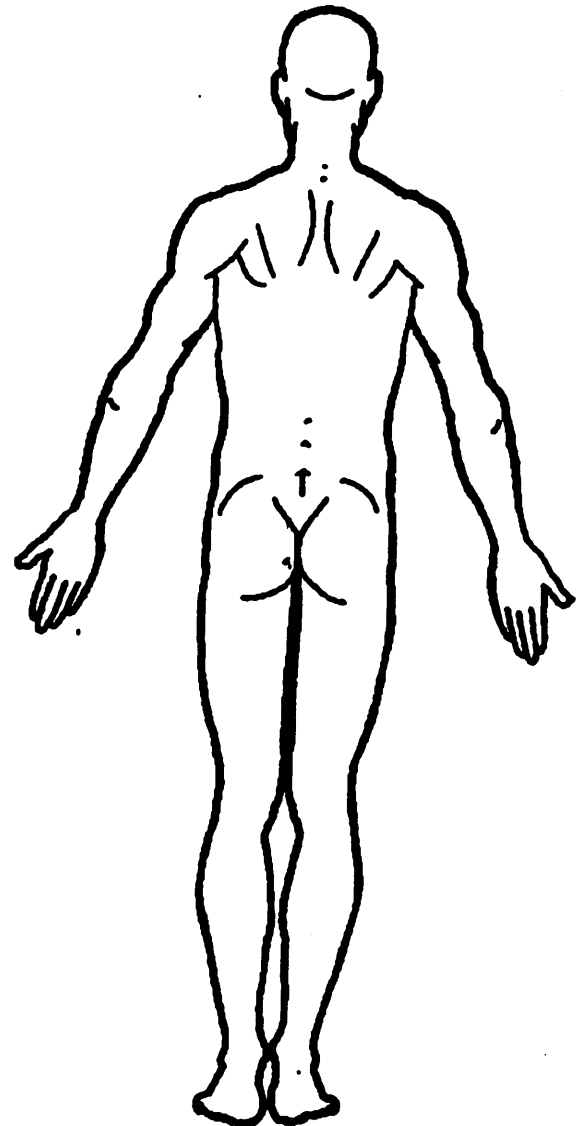
- (1) Right
- (2) Left
- (3) Bilateral
- (4) Central
- (5) Anterior
- (6) Posterior
- (7) Superior
- (8) Inferior
- (9) Unknown
- (0) Whole region

OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



CONTUSION
TO CHEST
AIRBAG



1a9

OFFICIAL INJURY DATA — SKELETAL INJURIES

Restrained?

___ No

___ Yes

Blood Alcohol Level
(mg/dl)

BAL = ___

Glasgow Coma
Scale Score

GCS = ___

Units of Blood
Given

Units = ___

Arterial Blood Gases

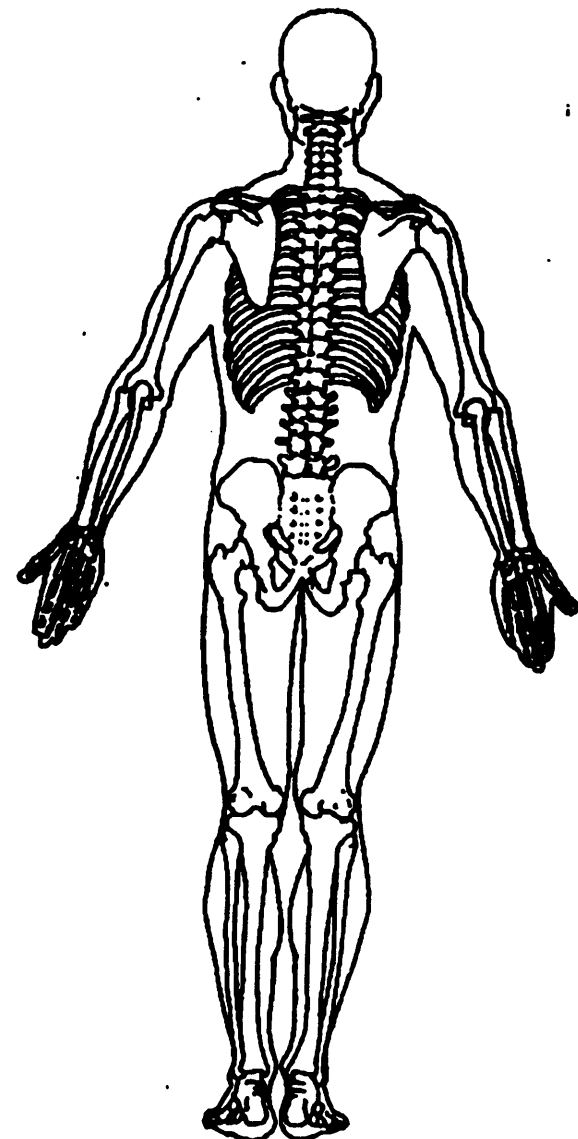
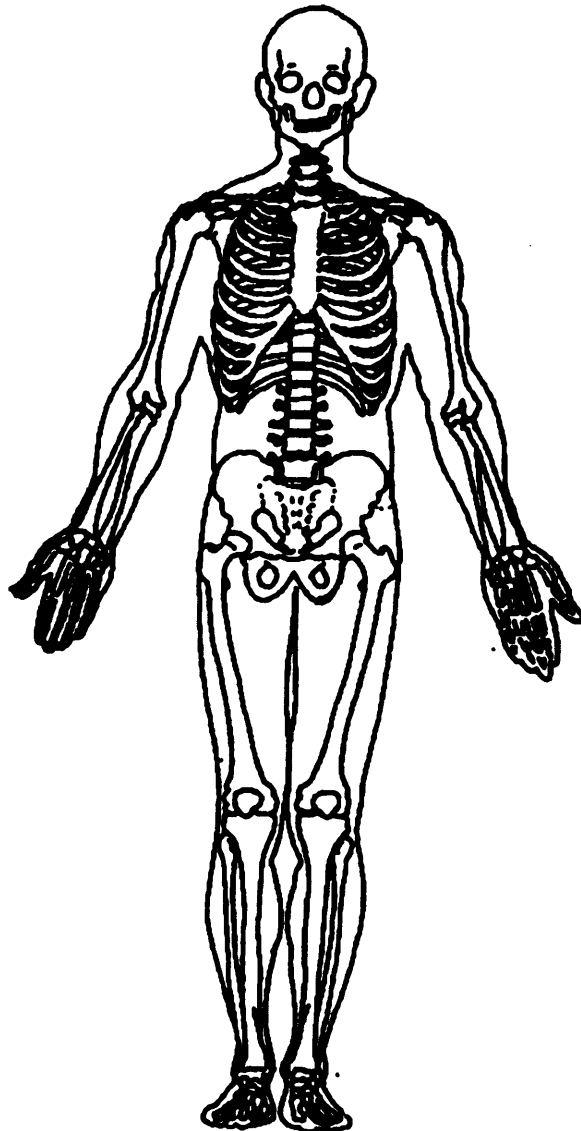
pH = ___

PO₂ = ___

PCO₂ = ___

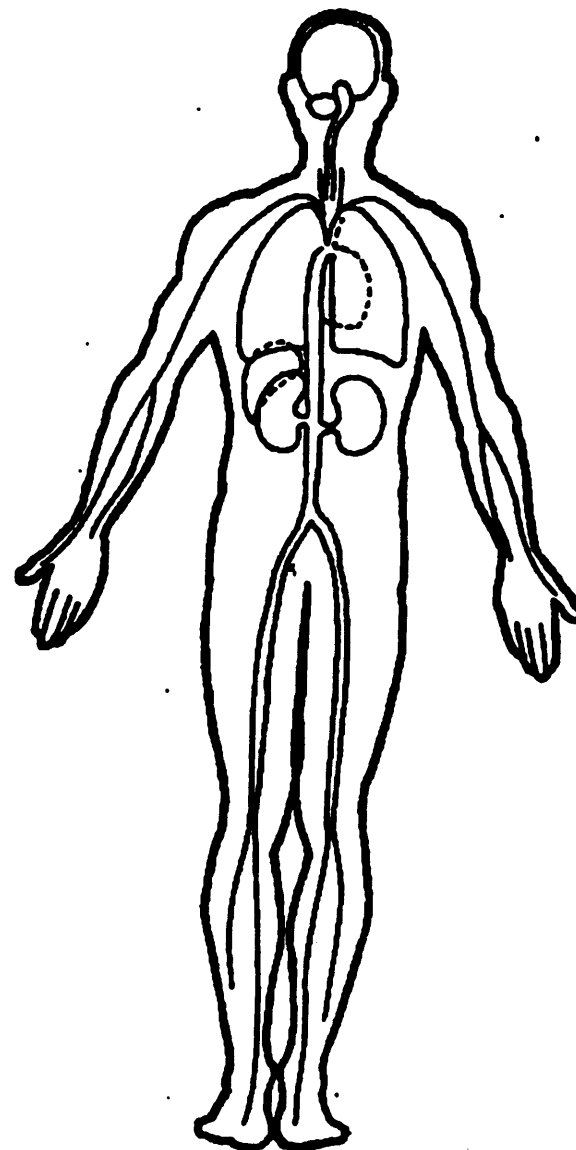
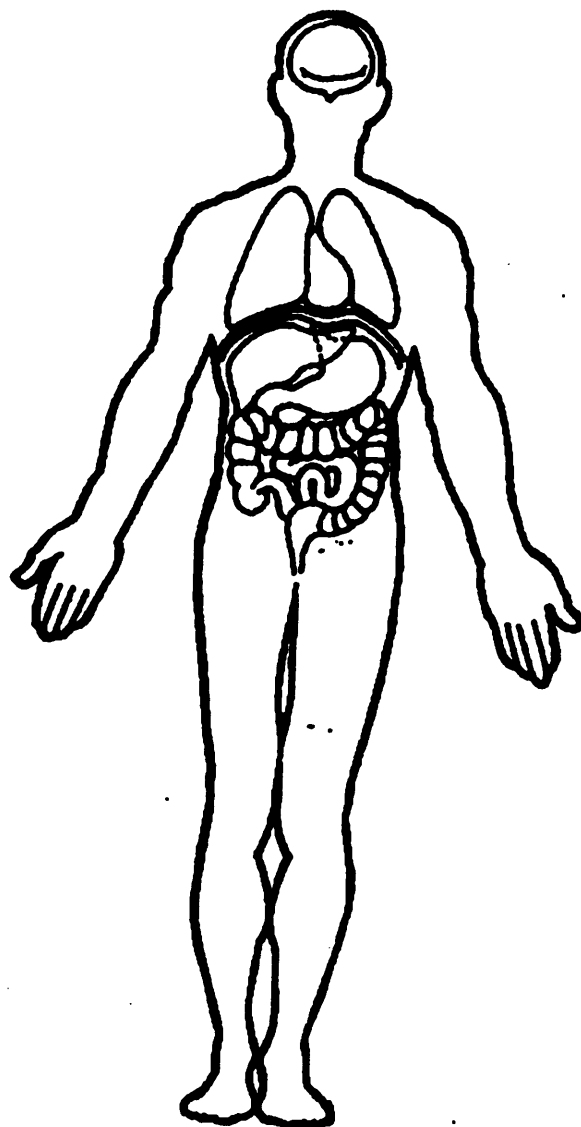
HCO₃ = ___

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



OFFICIAL INJURY DATA — INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



National Highway Traffic Safety
Administration

OCCUPANT ASSESSMENT FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number _____

2. Case Number - Stratum

DSI-94-AB-24

3. Vehicle Number

~~1~~

4. Occupant Number

~~2~~

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age

Code actual age at time of accident.

(00) Less than one year old (specify by month):

(97) 97 years and older

(99) Unknown

6. Occupant's Sex

(1) Male

(2) Female

(9) Unknown

7. Occupant's Height

Code actual height to the nearest
centimeter.

(999) Unknown

41 inches X 2.54 = 104 centimeters

8. Occupant's Weight

Code actual weight to the nearest
kilogram.

(999) Unknown

135 pounds X .4536 = 61.6 kilograms

9. Occupant's Role

(1) Driver

(2) Passenger

(9) Unknown

OCCUPANT'S SEATING

10. Occupant's Seat Position

13

Front Seat

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify):

(15) On or in the lap of another occupant

Second Seat

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify):

(25) On or in the lap of another occupant

Third Seat

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify):

(35) On or in the lap of another occupant

Fourth Seat

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify):

(45) On or in the lap of another occupant

(97) In or on unenclosed area

(98) Other seat (specify):

(99) Unknown

11. Occupant's Posture

(0) Normal posture

Abnormal posture

(1) Kneeling or standing on seat

(2) Lying on or across seat

(3) Kneeling, standing or sitting in front of seat

(4) Sitting sideways or turned to talk with another
occupant or to look out a rear window

(5) Sitting on a console

(6) Lying back in a reclined seat position

(7) Bracing with feet or hands on a surface in front
of seat

(8) Other abnormal posture (specify):

(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection ☒

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

13. Ejection Area ☒

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)
(specify): _____
- (9) Unknown

14. Ejection Medium ☒

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): _____
- (5) Integral structure
- (8) Other medium (specify): _____
- (9) Unknown

15. Medium Status (Immediately Prior To Impact) ☒

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

16. Entrapment ☒

(NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)

- (0) Not entrapped
- (1) Entrapped
- (9) Unknown

RESTRAINT SYSTEM EVALUATION

17. Manual (Active) Belt System Availability 4

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify): _____

(9) Unknown _____

18. Manual (Active) Belt System Use φ φ

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify): _____

(02) Shoulder belt _____

(03) Lap belt _____

(04) Lap and shoulder belt _____

(05) Belt used—type unknown _____

(08) Other belt used (specify): _____

(12) Shoulder belt used with child safety seat _____

(13) Lap belt used with child safety seat _____

(14) Lap and shoulder belt used with child safety seat _____

(15) Belt used with child safety seat—type unknown _____

(18) Other belt used with child safety seat (specify): _____

(99) Unknown if belt used _____

19. Proper Use of Manual (Active) Belts φ

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____

(8) Other improper use of manual belt system (specify): _____

(9) Unknown _____

20. Manual (Active) Belt Failure Modes During Accident φ

- (0) No manual belt used
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): _____

(6) Broken retractor _____

(7) Combination of above (specify): _____

(8) Other manual belt failure (specify): _____

(9) Unknown _____

21. Air Bag System Availability/Function 1

- (0) Not equipped/not available
- (1) Air bag

Non-functional

(2) Air bag disconnected (specify): _____

(3) Air bag not reinstalled _____

(9) Unknown _____

22. Air Bag System Deployment 1

- (0) Not equipped/not available
- (1) Air bag deployed during accident (as a result of impact)
- (2) Air bag deployed inadvertently just prior to accident
- (3) Air bag deployed, accident sequence undetermined
- (4) Nondeployed
- (5) Unknown if deployed
- (6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (9) Unknown

23. Are There Indications of Air Bag System Failure? 1

(0) Not equipped/not available

(1) No

(2) Yes (specify): _____

(9) Unknown _____

Note: See Variables 44 through 48 (Page 5)
for Information on Automatic Belts

24. Police Reported Restraint Use φ

- (0) None used
- (1) Police did not indicate restraint use
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt used, type not specified
- (6) Child safety seat
- (7) Other or automatic restraint (specify): _____

(8) Restrained, type unknown _____

(9) Police indicated "unknown"

HEAD RESTRAINT AND SEAT EVALUATION

25. Head Restraint Type/Damage by Occupant
at This Occupant PositionL

- (0) No head restraints
- (1) Integral—no damage
- (2) Integral—damaged during accident
- (3) Adjustable—no damage
- (4) Adjustable—damaged during accident
- (5) Add-on—no damage
- (6) Add-on—damaged during accident
- (8) Other (specify): _____
- (9) Unknown

26. Seat Type (this Occupant Position)

Φ 1

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify): _____
- (10) Box mounted seat (i.e., van type)
- (99) Unknown

27. Seat Performance (this Occupant Position)

1

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed (specify): _____
- (4) Seat track/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): _____
- (7) Combination of above (specify): _____
- (8) Other (specify): _____
- (9) Unknown

CHILD SAFETY SEAT

28. Child Safety Seat Make/Model

(000) No child safety seat

Applicable codes are found in your NASS CDS
Data Collection, Coding and Editing

(950) Built-in child safety seat

(997) Other make/model (specify):

(998) Unknown make/model

(999) Unknown if child safety seat used

29. Type of Child Safety Seat

(0) No child safety seat

(1) Infant seat

(2) Toddler seat

(3) Convertible seat

(4) Booster seat

(7) Other type child safety seat (specify):

(8) Unknown child safety seat type

(9) Unknown if child safety seat used

30. Child Safety Seat Orientation

(00) No child safety seat

Designed for Rear Facing for This Age/Weight

(01) Rear facing

(02) Forward facing

(08) Other orientation (specify):

(09) Unknown orientation

Designed For Forward Facing for This Age/Weight

(11) Rear facing

(12) Forward facing

(18) Other orientation (specify):

(19) Unknown orientation

*Unknown Design or Orientation For This
Age/Weight, or Unknown Age/Weight*

(21) Rear facing

(22) Forward facing

(28) Other orientation (specify):

(29) Unknown orientation

(99) Unknown if child safety seat used

31. Child Safety Seat Harness Usage

32. Child Safety Seat Shield Usage

33. Child Safety Seat Tether Usage

Note: Options below applicable to
Variables OA31-OA33.

(00) No child safety seat

Not Designed With Harness/Shield/Tether(01) After market harness/shield/tether
added, not used

(02) After market harness/shield/tether used

(03) Child safety seat used, but no after market
harness/shield/tether added(09) Unknown if harness/shield/tether
added or used*Designed With Harness/Shield/Tether*

(11) Harness/shield/tether not used

(12) Harness/shield/tether used

(19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

(21) Harness/shield/tether not used

(22) Harness/shield/tether used

(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

INJURY CONSEQUENCES

34. Injury Severity (Police Rating) 4

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

35. Treatment - Mortality 1

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):

Nonfatal

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (8) Treatment - other (specify):

(9) Unknown

36. Type Of Medical Facility (for Initial Treatment) 2

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):

(9) Unknown

37. Hospital Stay φ φ

- (00) Not Hospitalized

Code the number of days (up through 60) that the occupant stayed in hospital.

- (61) 61 days or more
- (99) Unknown

38. Working Days Lost 62

Code the number of days (up through 60) that the occupant lost from work due to the accident

- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

STOP - GO TO VARIABLE 44 ON PAGE 7**VARIABLES 39 THROUGH 43 ARE COMPLETED BY THE ZONE CENTER**39. Time to Death φ 1

Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)

- (00) Not fatal
- (96) Fatal - ruled disease
- (99) Unknown

40. 1st Medically Reported Cause of Death φ 141. 2nd Medically Reported Cause of Death φ φ42. 3rd Medically Reported Cause of Death φ φ

Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death

- (00) Not fatal or no additional causes
- (96) Mode of death given but specific injuries are not linked to cause of death. (specify):

(97) Other result (includes fatal ruled disease) (specify):

(99) Unknown

43. Number of Recorded Injuries for This Occupant 1 φ

Code the actual number of injuries recorded for this occupant.

- (00) No recorded injuries
- (97) Injured, details unknown
- (99) Unknown if injured

AUTOMATIC BELT SYSTEM**44. Automatic (Passive) Belt System Availability/Function** ☒

- (0) Not equipped/not available
- (1) 2 point automatic belts
- (2) 3 point automatic belts
- (3) Automatic belts - type unknown

Non-functional

- (4) Automatic belts destroyed or rendered inoperative
- (9) Unknown

45. Automatic (Passive) Belt System Use ☒

- (0) Not equipped/not available/destroyed or rendered inoperative
- (1) Automatic belt in use
- (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):

- (3) Automatic belt use unknown
- (9) Unknown

46. Automatic (Passive) Belt System Type ☒

- (0) Not equipped/not available
- (1) Non-motorized system
- (2) Motorized system
- (9) Unknown

47. Proper Use of Automatic (Passive) Belt System ☒

- (0) Not equipped/not available/not used
- (1) Automatic belt used properly
- (2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly

- (3) Automatic shoulder belt worn under arm
- (4) Automatic shoulder belt worn behind back
- (5) Automatic belt worn around more than one person
- (6) Lap portion of automatic belt worn on abdomen
- (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):
- (8) Other improper use of automatic belt system (specify):
- (9) Unknown

48. Automatic (Passive) Belt Failure Modes During Accident ☒

- (0) Not equipped/not available/not in use
- (1) No automatic belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

- (6) Broken retractor
- (7) Combination of above (specify):
- (8) Other automatic belt failure (specify):

- (9) Unknown

49. Seat Orientation (this Occupant Position) ☒

- (0) Occupant not seated or no seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify):

- (9) Unknown

Check the Primary Source Used In Determining Belt Use.

- [] Not equipped/not available/destroyed or rendered inoperative
- [] Vehicle inspection
- [x] Official injury data
- [x] Driver/occupant interview
- [] Other (specify):

- [] Unknown if belt used

ARE ALL APPLICABLE MEDICAL RECORDS INCLUDED WITH INITIAL SUBMISSION?

NO [] YES []

UPDATE CANDIDATE?

NO [] YES []

STOP - VARIABLES 50 THROUGH 53 ARE COMPLETED BY THE ZONE CENTER**TRAUMA DATA**

50. Glasgow Coma Scale (GCS) Score 3
(at Medical Facility)
(00) Not injured
(01) Injured - not treated at medical facility
(02) No GCS Score at medical facility
(03-15) Code the actual value of the initial GCS Score recorded at medical facility.
(97) Injured, details unknown
(99) Unknown if injured

51. Was the Occupant Given Blood? 1
(1) No - blood not given
(2) Yes - blood given
(specify units): _____
(9) Unknown if blood given

52. Arterial Blood Gases (ABG) - HCO_3 1
(00) Not injured
(01) Injured, ABGs not measured or reported
(02-50) Code the actual value of the HCO_3
(96) ABGs reported, HCO_3 unknown
(97) Injured, details unknown
(99) Unknown if injured

BELT USE DETERMINATION

53. Primary Source of Belt Use Determination 2
(0) Not equipped/not available/destroyed or rendered inoperative
(1) Vehicle inspection
(2) Official injury data
(3) Driver/occupant interview
(8) Other (specify): _____
(9) Unknown if belt used



U.S. Department of Transportation

Form Approved
O.M.B. No. 2127-0021National Highway Traffic Safety
Administration

OCCUPANT INJURY FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number _____	3. Vehicle Number <u>φ 1</u>
2. Case Number - Stratum <u>DST-94-AB-2φ</u>	4. Occupant Number <u>φ 2</u>

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

	Source of Injury Data	A.I.S. - 90					Injury Source Aspect	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number	
		Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity					
1st	5. <u>3</u>	6. <u>1</u>	7. <u>5</u>	8. <u>φ 2</u>	9. <u>φ 6</u>	10. <u>4</u>	11. <u>8</u>	12. <u>5 φ</u>	13. <u>2</u>	14. <u>1</u>	15. <u>φ φ</u>
2nd	16. <u>3</u>	17. <u>2</u>	18. <u>5</u>	19. <u>1 4</u>	20. <u>φ 6</u>	21. <u>1</u>	22. <u>8</u>	23. <u>1 1</u>	24. <u>2</u>	25. <u>1</u>	26. <u>φ φ</u>
3rd	27. <u>3</u>	28. <u>2</u>	29. <u>9</u>	30. <u>φ 2</u>	31. <u>φ 2</u>	32. <u>1</u>	33. <u>φ</u>	34. <u>4 5</u>	35. <u>2</u>	36. <u>1</u>	37. <u>φ φ</u>
4th	38. <u>3</u>	39. <u>2</u>	40. <u>4</u>	41. <u>3 2</u>	42. <u>φ 4</u>	43. <u>1</u>	44. <u>8</u>	45. <u>1 1</u>	46. <u>2</u>	47. <u>1</u>	48. <u>φ φ</u>
5th	49. <u>3</u>	50. <u>1</u>	51. <u>9</u>	52. <u>φ 6</u>	53. <u>φ φ</u>	54. <u>1</u>	55. <u>5</u>	56. <u>1 1</u>	57. <u>2</u>	58. <u>1</u>	59. <u>φ φ</u>
6th	60. <u>3</u>	61. <u>2</u>	62. <u>9</u>	63. <u>φ 6</u>	64. <u>φ 2</u>	65. <u>1</u>	66. <u>4</u>	67. <u>1 1</u>	68. <u>2</u>	69. <u>1</u>	70. <u>φ φ</u>
7th	71. <u>3</u>	72. <u>2</u>	73. <u>9</u>	74. <u>φ 6</u>	75. <u>φ φ</u>	76. <u>1</u>	77. <u>8</u>	78. <u>1 1</u>	79. <u>2</u>	80. <u>1</u>	81. <u>φ φ</u>
8th	82. <u>3</u>	83. <u>3</u>	84. <u>9</u>	85. <u>φ 4</u>	86. <u>φ 2</u>	87. <u>1</u>	88. <u>6</u>	89. <u>4 5</u>	90. <u>2</u>	91. <u>1</u>	92. <u>φ φ</u>
9th	93. <u>3</u>	94. <u>1</u>	95. <u>9</u>	96. <u>φ 6</u>	97. <u>φ 2</u>	98. <u>1</u>	99. <u>2</u>	100. <u>5 φ</u>	101. <u>2</u>	102. <u>1</u>	103. <u>φ φ</u>
10th	104. <u>3</u>	105. <u>1</u>	106. <u>9</u>	107. <u>φ 6</u>	108. <u>φ φ</u>	109. <u>1</u>	110. <u>2</u>	111. <u>5 φ</u>	112. <u>2</u>	113. <u>1</u>	114. <u>φ φ</u>

OFFICIAL

- (1) Autopsy records with or without hospital/medical records
- (2) Hospital/medical records other than emergency room (e.g., discharge summary)
- (3) Emergency room records only (including associated X-rays or other lab reports)
- (4) Private physician, walk-in or emergency clinic

UNOFFICIAL

- (5) Lay coroner report
- (6) E.M.S. personnel
- (7) Interviewee
- (8) Other source (specify):

- (9) Police

INJURY SOURCE**FRONT**

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (16) Driver side air bag compartment cover
- (17) Passenger side air bag compartment cover
- (18) Windshield reinforced by exterior object (specify):
- (19) Other front object (specify):

LEFT SIDE

- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A (A1/A2)-pillar
- (23) Left B-pillar
- (24) Other left pillar (specify):

- (25) Left side window glass or frame
- (26) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (27) Other left side object (specify):

- (28) Left side window sill

RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A (A1/A2)-pillar
- (33) Right B-pillar
- (34) Other right pillar (specify):
- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (37) Other right side object (specify):
- (38) Right side window sill

INTERIOR

- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar or door frame attachment point
- (43) Other restraint system component (specify):
- (44) Head restraint system
- (45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)
- (46) Other occupants (specify):
- (47) Interior loose objects
- (48) Child safety seat (specify):
- (49) Other interior object (specify):

ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

FLOOR

- (56) Floor (including toe pan)
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

REAR

- (60) Backlight (rear window)

- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify):

EXTERIOR OF OCCUPANT'S VEHICLE

- (65) Hood
- (66) Outside hardware (e.g., outside mirror, antenna)
- (67) Other exterior surface or tires (specify):
- (68) Unknown exterior objects

EXTERIOR OF OTHER MOTOR VEHICLE

- (70) Front bumper
- (71) Hood edge
- (72) Other front of vehicle (specify):
- (73) Hood
- (74) Hood ornament
- (75) Windshield, roof rail, A-pillar
- (76) Side surface
- (77) Side mirrors
- (78) Other side protrusions (specify)
- (79) Rear surface
- (80) Undercarriage
- (81) Tires and wheels
- (82) Other exterior of other motor vehicle (specify):
- (83) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

- (84) Ground
- (85) Other vehicle or object (specify)
- (86) Unknown vehicle or object

NONCONTACT INJURY

- (90) Fire in vehicle
- (91) Flying glass
- (92) Other noncontact injury source (specify):
- (93) Air bag exhaust gases
- (97) Injured, unknown source

INJURY SOURCE CONFIDENCE LEVEL

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

DIRECT/INDIRECT INJURY

- (1) Direct contact injury
- (2) Indirect contact injury
- (3) Noncontact injury
- (7) Injured, unknown source

OCCUPANT INJURY CLASSIFICATION**Body Region**

- (1) Head
- (2) Face
- (3) Neck
- (4) Thorax
- (5) Abdomen
- (6) Spine
- (7) Upper Extremity
- (8) Lower Extremity
- (9) Unspecified

Type of Anatomic Structure

- (1) Whole Area
- (2) Vessels
- (3) Nerves
- (4) Organs (includes muscles/ligaments)
- (5) Skeletal (includes joints)
- (6) Head - LOC
- (9) Skin

Specific Anatomic Structure**Whole Area**

- (02) Skin - Abrasion
- (04) Skin - Contusion
- (06) Skin - Laceration
- (08) Skin - Avulsion
- (10) Amputation
- (20) Burn
- (30) Crush
- (40) Degloving
- (50) Injury - NFS
- (90) Trauma, other than mechanical

Head - LOC

- (02) Length of LOC
- (04, 06, 08) Level of Consciousness
- (10) Concussion

Spine

- (02) Cervical
- (04) Thoracic
- (06) Lumbar

Vessels, Nerves, Organs, Bones, Joints are assigned consecutive two digit numbers beginning with 02

Level of Injury

Specific injuries are assigned consecutive two-digit numbers beginning with 02.

To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.

Abbreviated Injury Scale

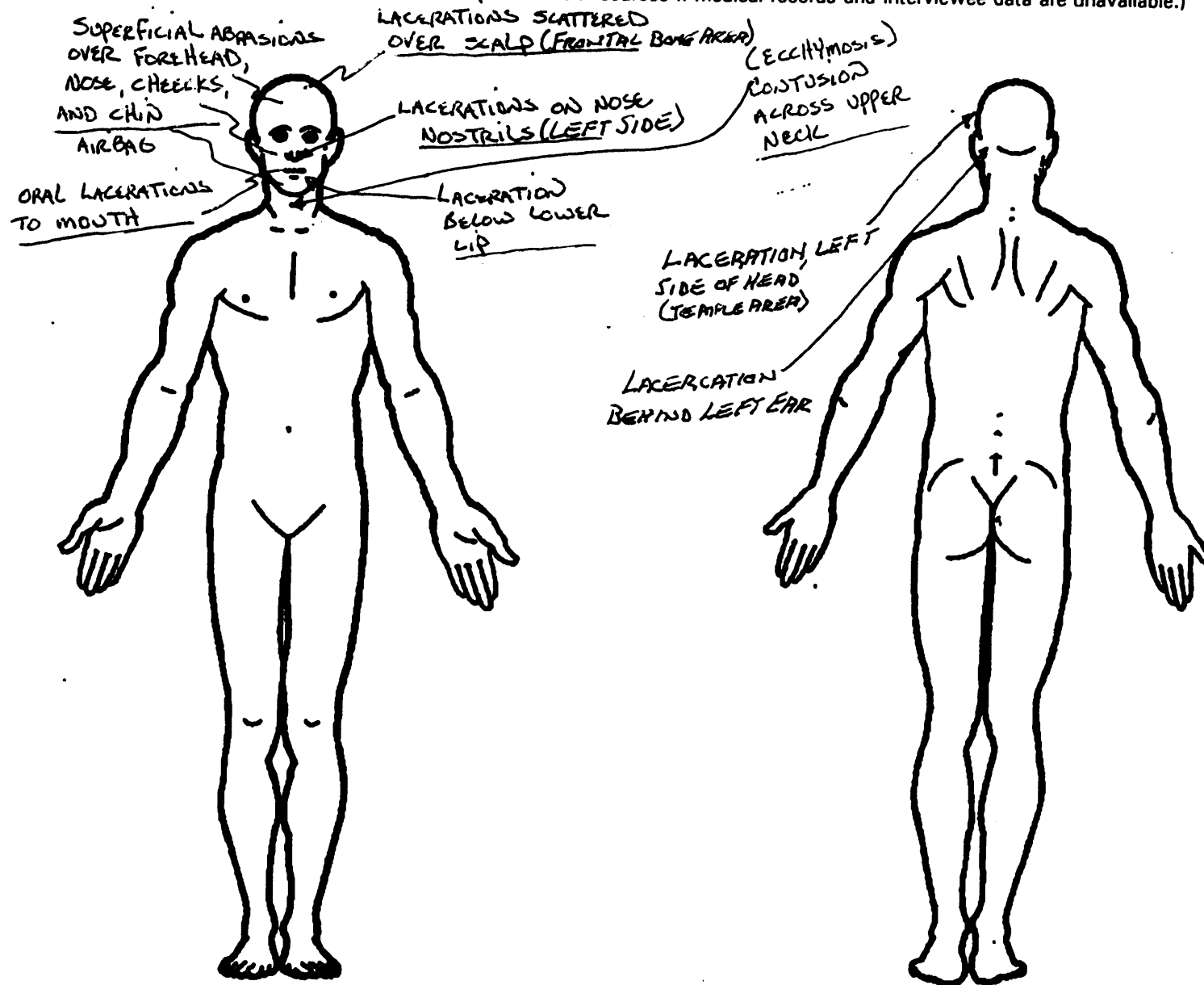
- (1) Minor injury
- (2) Moderate injury
- (3) Serious injury
- (4) Severe injury
- (5) Critical injury
- (6) Maximum (untreatable)
- (7) Injured, unknown severity

Aspect

- (1) Right
- (2) Left
- (3) Bilateral
- (4) Central
- (5) Anterior
- (6) Posterior
- (7) Superior
- (8) Inferior
- (9) Unknown
- (0) Whole region

OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



OFFICIAL INJURY DATA — SKELETAL INJURIES

Restrainted?

— No
— Yes

Blood Alcohol Level
(mg/dl)

BAL = —

Glasgow Coma
Scale Score

GCSS = —

Units of Blood
Given

Units = —

Arterial Blood Gases

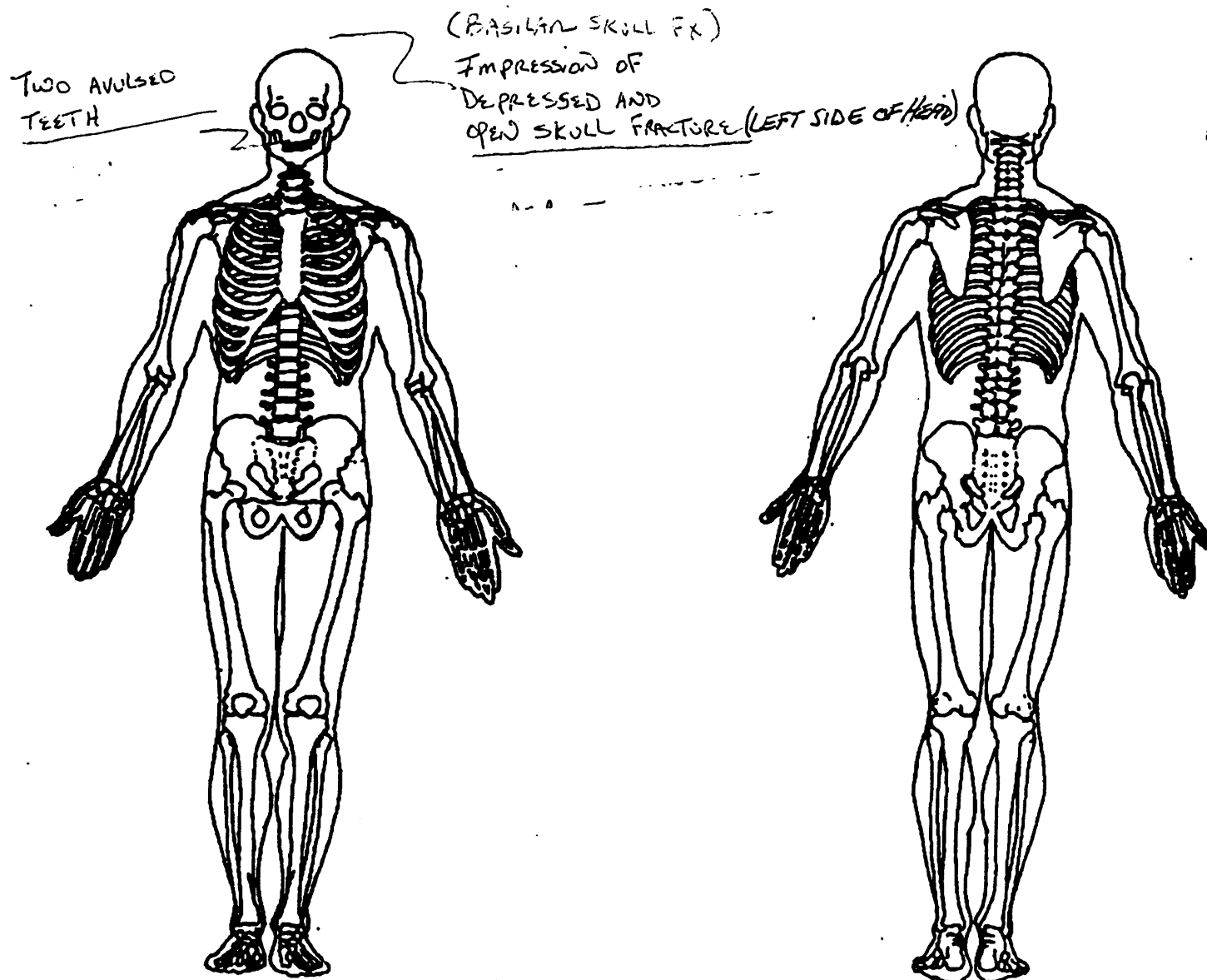
pH = —

PO₂ = —

PCO₂ = —

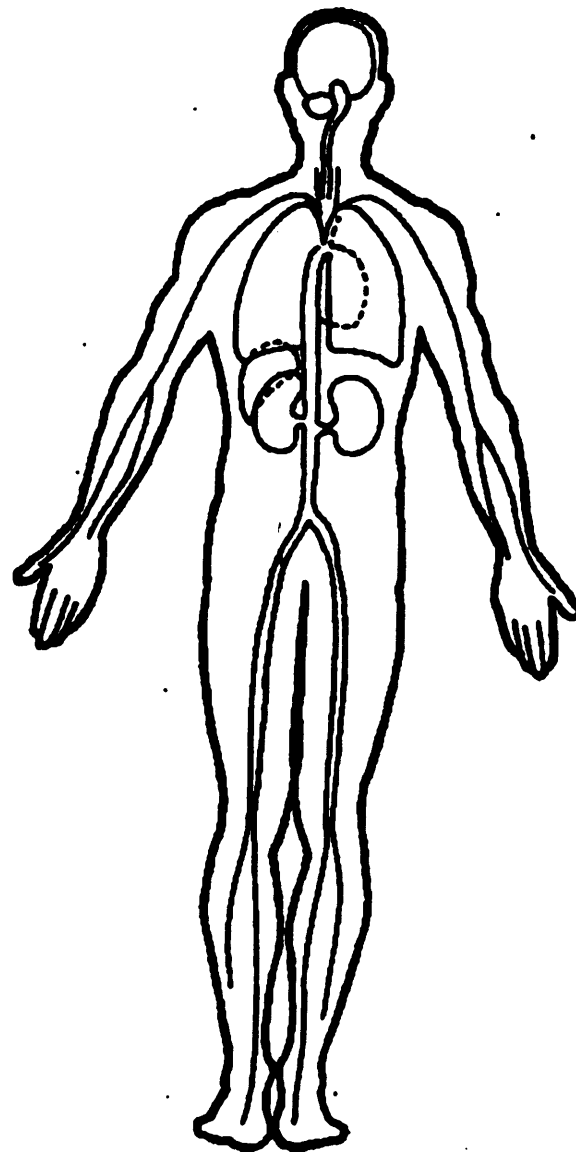
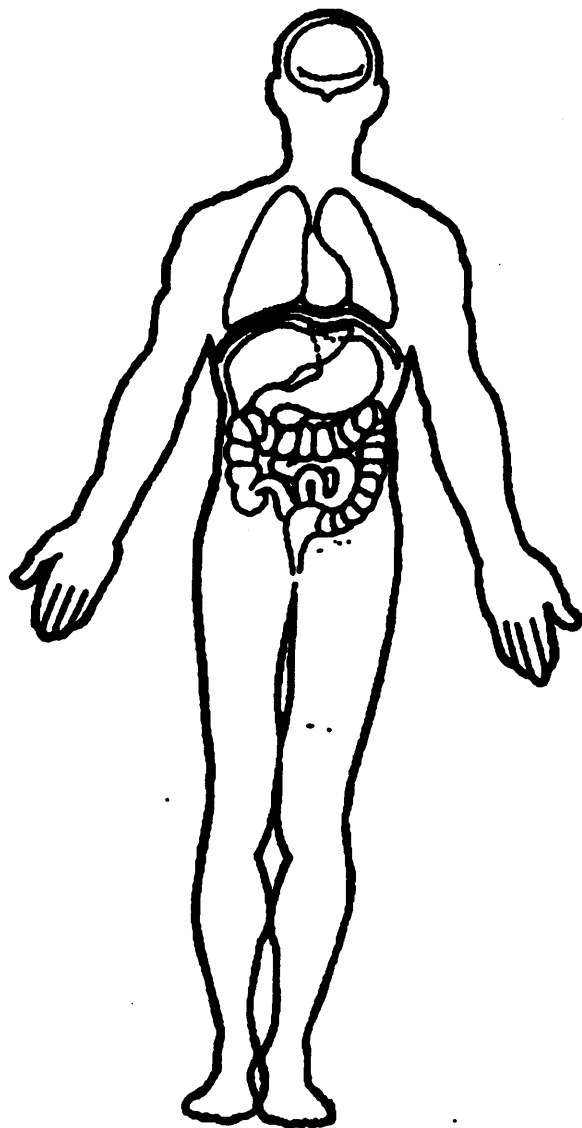
HCO₃ = —

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



OFFICIAL INJURY DATA — INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



OCCUPANT ASSESSMENT FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

Administration Traffic Safety

OCCUPANT'S SEATING

1. Primary Sampling Unit Number

2. Case Number - Stratum

DSI-94-AB-24

3. Vehicle Number

01

4. Occupant Number

03

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age

Code actual age at time of accident.

(00) Less than one year old (specify by month):

(97) 97 years and older

(99) Unknown

6. Occupant's Sex

(1) Male

(2) Female

(9) Unknown

7. Occupant's Height

Code actual height to the nearest
centimeter.

(999) Unknown

58 inches X 2.54 = 147 centimeters

8. Occupant's Weight

Code actual weight to the nearest
kilogram.

(999) Unknown

60 pounds X .4536 = 27 kilograms

9. Occupant's Role

(1) Driver

(2) Passenger

(9) Unknown

10. Occupant's Seat Position

Front Seat

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify):

(15) On or in the lap of another occupant

Second Seat

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify):

(25) On or in the lap of another occupant

Third Seat

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify):

(35) On or in the lap of another occupant

Fourth Seat

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify):

(45) On or in the lap of another occupant

(97) In or on unenclosed area

(98) Other seat (specify):

(99) Unknown

11. Occupant's Posture

(0) Normal posture

Abnormal posture

(1) Kneeling or standing on seat

(2) Lying on or across seat

(3) Kneeling, standing or sitting in front of seat

(4) Sitting sideways or turned to talk with another
occupant or to look out a rear window

(5) Sitting on a console

(6) Lying back in a reclined seat position

(7) Bracing with feet or hands on a surface in front
of seat

(8) Other abnormal posture (specify):

(9) Unknown

RESTRAINT SYSTEM EVALUATION

17. Manual (Active) Belt System Availability

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify):

(9) Unknown

18. Manual (Active) Belt System Use

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify):

(02) Shoulder belt

(03) Lap belt

(04) Lap and shoulder belt

(05) Belt used—type unknown

(08) Other belt used (specify):

(12) Shoulder belt used with child safety seat

(13) Lap belt used with child safety seat

(14) Lap and shoulder belt used with child safety seat

(15) Belt used with child safety seat—type unknown

(18) Other belt used with child safety seat (specify):

(99) Unknown if belt used

19. Proper Use of Manual (Active) Belts

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly

(3) Shoulder belt worn under arm

(4) Shoulder belt worn behind back or seat

(5) Belt worn around more than one person

(6) Lap belt worn on abdomen

(7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):

(8) Other improper use of manual belt system (specify):

(9) Unknown

20. Manual (Active) Belt Failure Modes During Accident

- (0) No manual belt used
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

(6) Broken retractor

(7) Combination of above (specify):

(8) Other manual belt failure (specify):

(9) Unknown

21. Air Bag System Availability/Function

- (0) Not equipped/not available
- (1) Air bag

Non-functional

(2) Air bag disconnected (specify):

(3) Air bag not reinstalled

(9) Unknown

22. Air Bag System Deployment

- (0) Not equipped/not available
- (1) Air bag deployed during accident (as a result of impact)
- (2) Air bag deployed inadvertently just prior to accident
- (3) Air bag deployed, accident sequence undetermined
- (4) Nondeployed
- (5) Unknown if deployed
- (6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (9) Unknown

23. Are There Indications of Air Bag System Failure?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify):

(9) Unknown

Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts

24. Police Reported Restraint Use

- (0) None used
- (1) Police did not indicate restraint use
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt used, type not specified
- (6) Child safety seat
- (7) Other or automatic restraint (specify):

(8) Restrained, type unknown

(9) Police indicated "unknown"

HEAD RESTRAINT AND SEAT EVALUATION

25. Head Restraint Type/Damage by Occupant
at This Occupant Positionφ

- (0) No head restraints
- (1) Integral—no damage
- (2) Integral—damaged during accident
- (3) Adjustable—no damage
- (4) Adjustable—damaged during accident
- (5) Add-on—no damage
- (6) Add-on—damaged during accident
- (8) Other (specify): _____
- (9) Unknown

26. Seat Type (this Occupant Position)

φ 5

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify): _____
- (10) Box mounted seat (i.e., van type)
- (99) Unknown

27. Seat Performance (this Occupant Position)

1

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed (specify): _____
- (4) Seat track/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): _____

(7) Combination of above (specify): _____

(8) Other (specify): _____

(9) Unknown

INJURY CONSEQUENCES

34. Injury Severity (Police Rating) 1

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

35. Treatment - Mortality 4

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):

Nonfatal

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (8) Treatment - other (specify):
- (9) Unknown

36. Type Of Medical Facility (for Initial Treatment) 2

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):
- (9) Unknown

37. Hospital Stay φ φ

- (00) Not Hospitalized

Code the number of days (up through 60) that the occupant stayed in hospital.

- (61) 61 days or more
- (99) Unknown

38. Working Days Lost 97

Code the number of days (up through 60) that the occupant lost from work due to the accident

- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

STOP - GO TO VARIABLE 44 ON PAGE 7

VARIABLES 39 THROUGH 43 ARE COMPLETED BY THE ZONE CENTER

39. Time to Death φ φ

Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)

- (00) Not fatal
- (96) Fatal - ruled disease
- (99) Unknown

40. 1st Medically Reported Cause of Death φ φ41. 2nd Medically Reported Cause of Death φ φ42. 3rd Medically Reported Cause of Death φ φ

Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death

- (00) Not fatal or no additional causes
- (96) Mode of death given but specific injuries are not linked to cause of death. (specify):

- (97) Other result (includes fatal ruled disease) (specify):

- (99) Unknown

43. Number of Recorded Injuries for This Occupant φ 2

Code the actual number of injuries recorded for this occupant.

- (00) No recorded injuries
- (97) Injured, details unknown
- (99) Unknown if injured

AUTOMATIC BELT SYSTEM**44. Automatic (Passive) Belt System Availability/Function** ☒

- (0) Not equipped/not available
- (1) 2 point automatic belts
- (2) 3 point automatic belts
- (3) Automatic belts - type unknown

Non-functional

- (4) Automatic belts destroyed or rendered inoperative
- (9) Unknown

45. Automatic (Passive) Belt System Use ☒

- (0) Not equipped/not available/destroyed or rendered inoperative
- (1) Automatic belt in use
- (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify): _____
- (3) Automatic belt use unknown
- (9) Unknown

46. Automatic (Passive) Belt System Type ☒

- (0) Not equipped/not available
- (1) Non-motorized system
- (2) Motorized system
- (9) Unknown

47. Proper Use of Automatic (Passive) Belt System ☒

- (0) Not equipped/not available/not used
- (1) Automatic belt used properly
- (2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly

- (3) Automatic shoulder belt worn under arm
- (4) Automatic shoulder belt worn behind back
- (5) Automatic belt worn around more than one person
- (6) Lap portion of automatic belt worn on abdomen
- (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): _____
- (8) Other improper use of automatic belt system (specify): _____
- (9) Unknown

48. Automatic (Passive) Belt Failure Modes During Accident ☒

- (0) Not equipped/not available/not in use
- (1) No automatic belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): _____
- (6) Broken retractor
- (7) Combination of above (specify): _____
- (8) Other automatic belt failure (specify): _____
- (9) Unknown

49. Seat Orientation (this Occupant Position) ☒

- (0) Occupant not seated or no seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify): _____
- (9) Unknown

Check the Primary Source Used In Determining Belt Use.

- [] Not equipped/not available/destroyed or rendered inoperative
- [] Vehicle inspection
- [X] Official injury data
- [X] Driver/occupant interview
- [] Other (specify): _____
- [] Unknown if belt used

ARE ALL APPLICABLE MEDICAL RECORDS INCLUDED WITH INITIAL SUBMISSION?

NO [] YES [X]

UPDATE CANDIDATE?

NO [X] YES []

STOP - VARIABLES 50 THROUGH 53 ARE COMPLETED BY THE ZONE CENTER**TRAUMA DATA**

50. Glasgow Coma Scale (GCS) Score 2
(at Medical Facility)
(00) Not injured
(01) Injured - not treated at medical facility
(02) No GCS Score at medical facility
(03-15) Code the actual value of the initial GCS Score recorded at medical facility.
(97) Injured, details unknown
(99) Unknown if injured

51. Was the Occupant Given Blood? 1
(1) No - blood not given
(2) Yes - blood given
(specify units): _____
(9) Unknown if blood given

52. Arterial Blood Gases (ABG) - HCO_3 1
(00) Not injured
(01) Injured, ABGs not measured or reported
(02-50) Code the actual value of the HCO_3
(96) ABGs reported, HCO_3 unknown
(97) Injured, details unknown
(99) Unknown if injured

BELT USE DETERMINATION

53. Primary Source of Belt Use Determination 2
(0) Not equipped/not available/destroyed or rendered inoperative
(1) Vehicle inspection
(2) Official injury data
(3) Driver/occupant interview
(8) Other (specify): _____
(9) Unknown if belt used

National Highway Traffic Safety
Administration

OCCUPANT INJURY FORM

Form Approved
O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

3. Vehicle Number

2. Case Number - Stratum DSI-94-AB-27

4. Occupant Number

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

	Source of Injury Data	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number
1st	5. 9	6. 8	7. 9	8. 02	9. 02	10. 1	11. 9	12. 56	13. 1	14. 1	15. 00
2nd	16. 9	17. 8	18. 9	19. 04	20. 02	21. 1	22. 9	23. 56	24. 1	25. 1	26. 00
3rd	27.	28.	29.	30.	31.	32.	33.	34.	35.	36.	37.
4th	38.	39.	40.	41.	42.	43.	44.	45.	46.	47.	48.
5th	49.	50.	51.	52.	53.	54.	55.	56.	57.	58.	59.
6th	60.	61.	62.	63.	64.	65.	66.	67.	68.	69.	70.
7th	71.	72.	73.	74.	75.	76.	77.	78.	79.	80.	81.
8th	82.	83.	84.	85.	86.	87.	88.	89.	90.	91.	92.
9th	93.	94.	95.	96.	97.	98.	99.	100.	101.	102.	103.
10th	104.	105.	106.	107.	108.	109.	110.	111.	112.	113.	114.

SOURCE OF INJURY DATA

OFFICIAL

- (1) Autopsy records with or without hospital/medical records
- (2) Hospital/medical records other than emergency room (e.g., discharge summary)
- (3) Emergency room records only (including associated X-rays or other lab reports)
- (4) Private physician, walk-in or emergency clinic

UNOFFICIAL

- (5) Lay coroner report
- (6) E.M.S. personnel
- (7) Interviewee
- (8) Other source (specify): _____
- (9) Police

INJURY SOURCE

FRONT

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (16) Driver side air bag compartment cover
- (17) Passenger side air bag compartment cover
- (18) Windshield reinforced by exterior object (specify): _____
- (19) Other front object (specify): _____

LEFT SIDE

- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A (A1/A2)-pillar
- (23) Left B-pillar
- (24) Other left pillar (specify): _____

- (25) Left side window glass or frame
- (26) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (27) Other left side object (specify): _____

- (28) Left side window sill

RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A (A1/A2)-pillar
- (33) Right B-pillar
- (34) Other right pillar (specify): _____

- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (37) Other right side object (specify): _____

- (38) Right side window sill

INTERIOR

- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar or door frame attachment point
- (43) Other restraint system component (specify): _____
- (44) Head restraint system
- (45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)
- (46) Other occupants (specify): _____
- (47) Interior loose objects
- (48) Child safety seat (specify): _____
- (49) Other interior object (specify): _____

ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

FLOOR

- (56) Floor (including toe pan)
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

REAR

- (60) Backlight (rear window)

- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify): _____

EXTERIOR of OCCUPANT'S VEHICLE

- (66) Hood
- (68) Outside hardware (e.g., outside mirror, antenna)
- (67) Other exterior surface or tire (specify): _____
- (68) Unknown exterior objects

EXTERIOR OF OTHER MOTOR VEHICLE

- (70) Front bumper
- (71) Hood edge
- (72) Other front of vehicle (specify): _____

- (73) Hood
- (74) Hood ornament
- (75) Windshield, roof rail, A-pillar
- (76) Side surface
- (77) Side mirrors
- (78) Other side protrusions (specify): _____

- (79) Rear surface
- (80) Undercarriage
- (81) Tires and wheels
- (82) Other exterior of other motor vehicle (specify): _____

- (83) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

- (84) Ground
- (85) Other vehicle or object (specify): _____
- (86) Unknown vehicle or object

NONCONTACT INJURY

- (90) Fire in vehicle
- (91) Flying glass
- (92) Other noncontact injury source (specify): _____
- (93) Air bag exhaust gases
- (97) Injured, unknown source

INJURY SOURCE CONFIDENCE LEVEL

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

DIRECT/INDIRECT INJURY

- (1) Direct contact injury
- (2) Indirect contact injury
- (3) Noncontact injury
- (7) Injured, unknown source

OCCUPANT INJURY CLASSIFICATION

Body Region

- (1) Head
- (2) Face
- (3) Neck
- (4) Thorax
- (5) Abdomen
- (6) Spine
- (7) Upper Extremity
- (8) Lower Extremity
- (9) Unspecified

Type of Anatomic Structure

- (1) Whole Area
- (2) Vessels
- (3) Nerves
- (4) Organs (includes muscles/ligaments)
- (5) Skeletal (includes joints)
- (6) Head - LOC
- (9) Skin

Specific Anatomic Structure

Whole Area

- (02) Skin - Abrasion
- (04) Skin - Contusion
- (06) Skin - Laceration
- (08) Skin - Avulsion
- (10) Amputation
- (20) Burn
- (30) Crush
- (40) Degloving
- (50) Injury - NFS
- (90) Trauma, other than mechanical

Head - LOC

- (02) Length of LOC
- (04, 06, 08) Level of Consciousness
- (10) Concussion

Spine

- (02) Cervical
- (04) Thoracic
- (06) Lumbar

Vessels, Nerves, Organs, Bones, Joints are assigned consecutive two digit numbers beginning with 02

Level of Injury

Specific injuries are assigned consecutive two-digit numbers beginning with 02.

To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.

Abbreviated Injury Scale

- (1) Minor injury
- (2) Moderate injury
- (3) Serious injury
- (4) Severe injury
- (5) Critical injury
- (6) Maximum (untreatable)
- (7) Injured, unknown severity

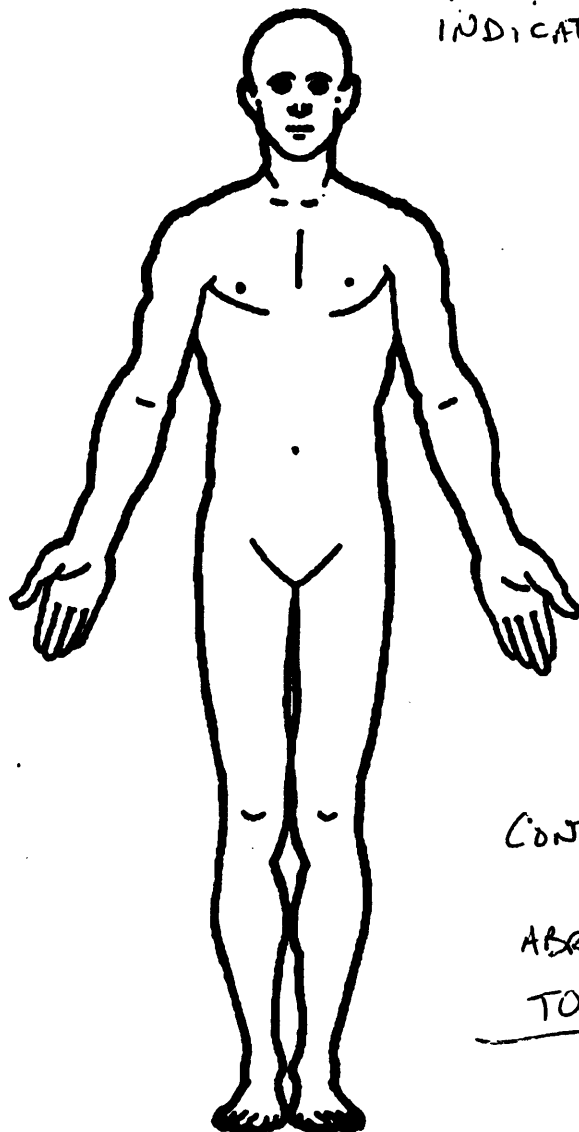
Aspect

- (1) Right
- (2) Left
- (3) Bilateral
- (4) Central
- (5) Anterior
- (6) Posterior
- (7) Superior
- (8) Inferior
- (9) Unknown
- (0) Whole region

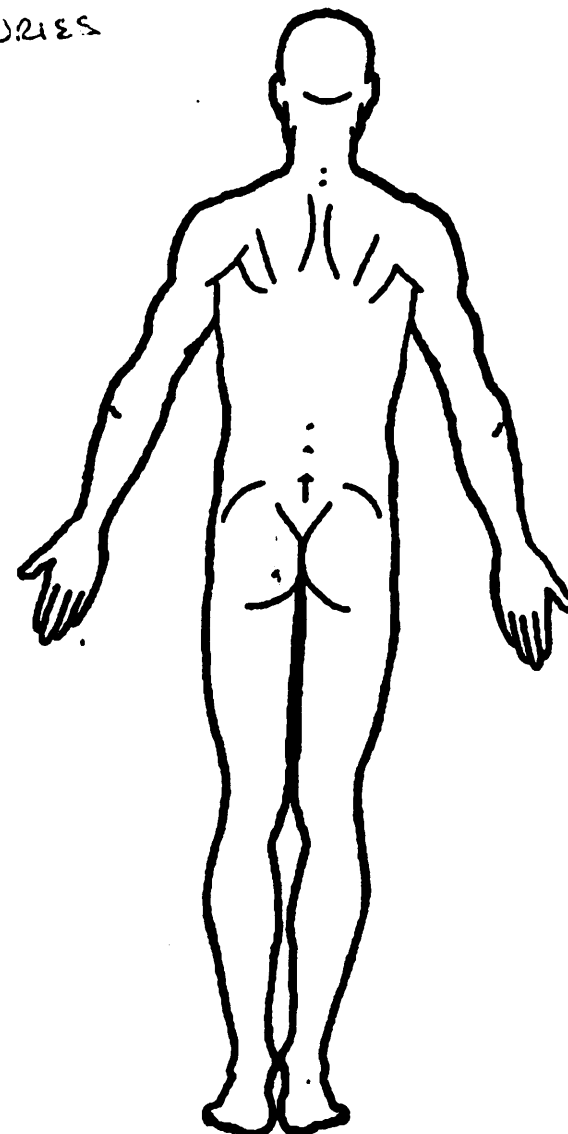
OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

CODED PER PAR ONLY.
DRIVER & EMERGENCY RECORDS
INDICATED NO INJURIES



CONTUSIONS
&
ABRASIONS
TO LEG(S)



BEST AVAILABLE COPY

OFFICIAL INJURY DATA — SKELETAL INJURIES

Restrainted?

___ No
___ Yes

Blood Alcohol Level
(mg/dl)

BAL = ___

Glasgow Coma
Scale Score

GCS = ___

Units of Blood
Given

Units = ___

Arterial Blood Gases

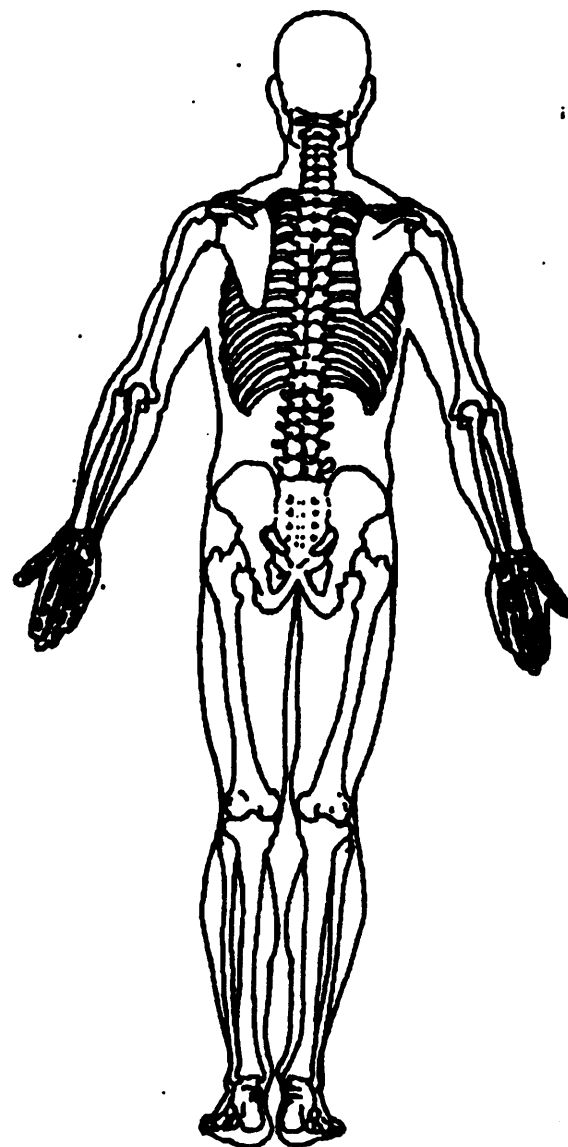
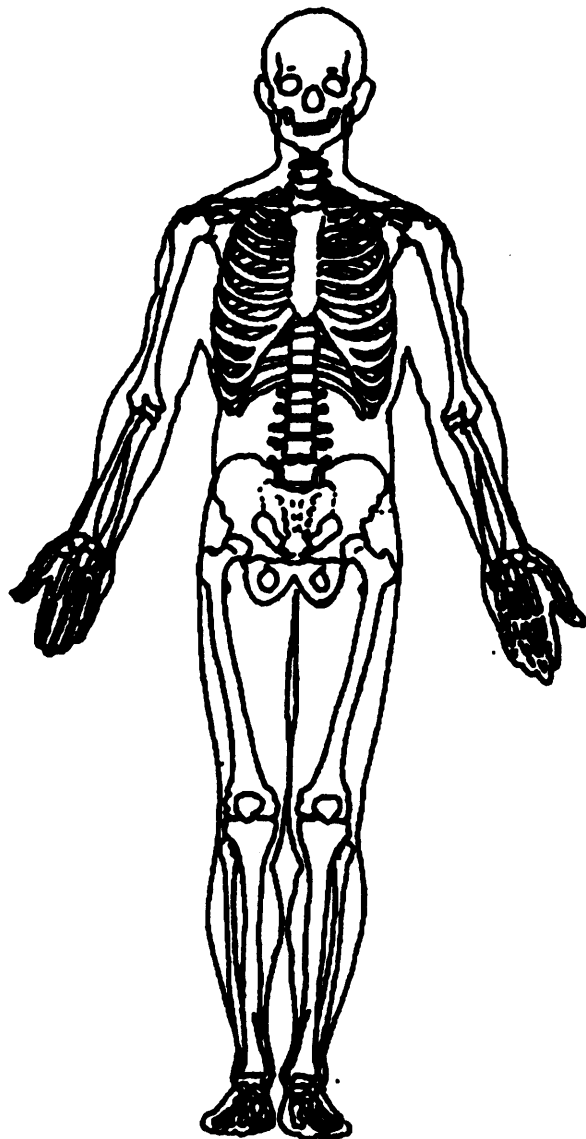
pH = ___

PO₂ = ___

PCO₂ = ___

HCO₃ = ___

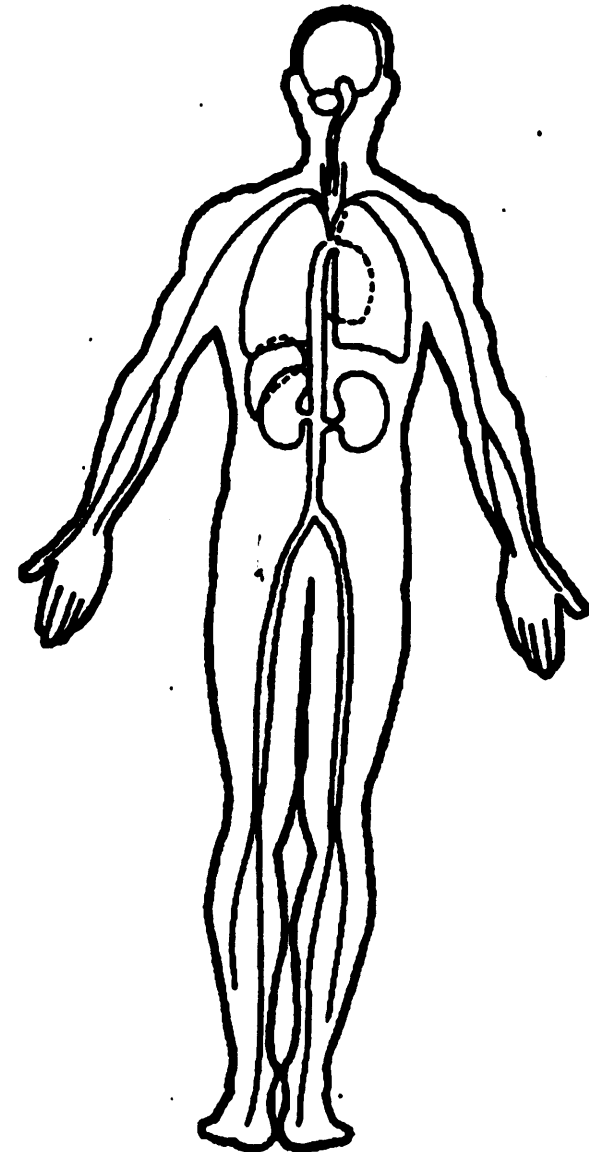
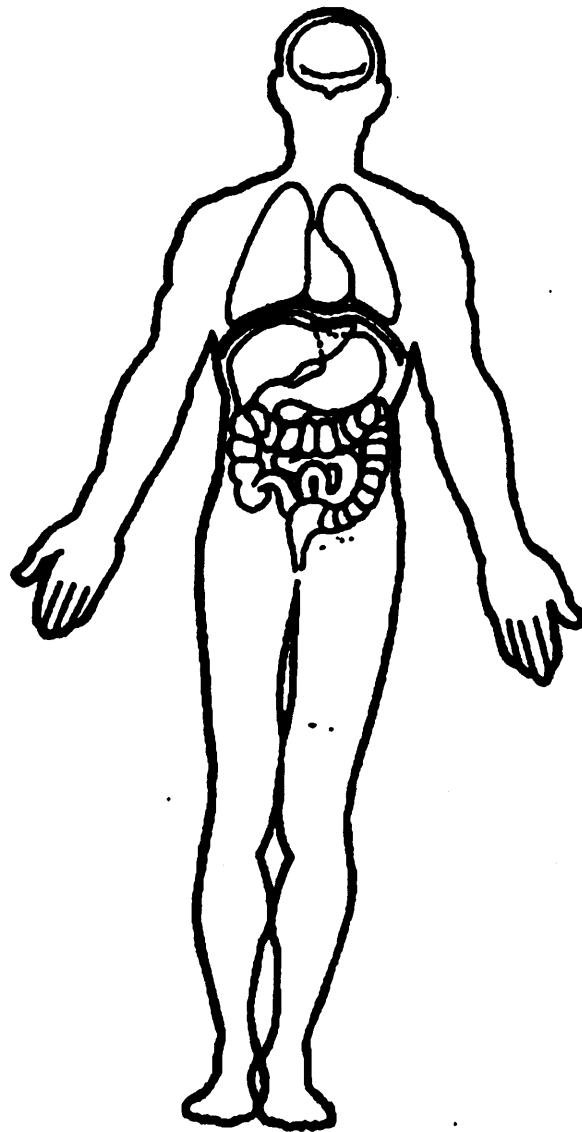
Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



154

OFFICIAL INJURY DATA — INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



GENERAL VEHICLE FORM

1. Primary Sampling Unit Number

2. Case Number - Stratum

DSI-94-AB-24

3. Vehicle Number

02

VEHICLE IDENTIFICATION

4. Vehicle Model Year

Code the last two digits of the model year
(99) Unknown

80

5. Vehicle Make (specify):

CHEVROLET
Applicable codes are found in your
NASS Data Collection, Coding and
Editing Manual.
(99) Unknown

20

6. Vehicle Model (specify):

MALIBU
Applicable codes are found in your
NASS Data Collection, Coding and
Editing Manual.
(999) Unknown

001

7. Body Type

Note: Applicable codes may be found on
the back of this page.

02

8. Vehicle Identification Number

1 T 2 7 K A Z X X X X X X - - - -
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17Left justify; Slash zeros and letter Z (0 and Z)
No VIN—Code all zeros
Unknown—Code all nines

OFFICIAL RECORDS

9. Police Reported Vehicle Disposition

(0) Not towed due to vehicle damage
(1) Towed due to vehicle damage
(9) Unknown

1

10. Police Reported Travel Speed

Code to the nearest kph (NOTE: 000 means
less than 0.5 kph)
(160) 159.5 kph and above
(999) Unknown

999

____ mph X 1.6093 = ____ kph

11. Police Reported Alcohol Presence

(0) No alcohol present
(1) Yes (alcohol present)
(7) Not reported
(8) No driver present
(9) Unknown

0

Note: See variables 37 through 55

(Page 4) for information on Other Drugs

12. Alcohol Test Result For Driver

Code actual value (decimal implied
before first digit—0.xx)(95) Test refused
(96) None given
(97) AC test performed, results unknown
(98) No driver present
(99) Unknown

96

Source: _____

ACCIDENT RELATED

13. Speed Limit

(000) No statutory limit
Code posted or statutory speed limit
in kph
(999) Unknown

064

40 mph X 1.6093 = 64 kph

14. Attempted Avoidance Maneuver

(01) No avoidance actions
(02) Braking (no lockup)
(03) Braking (lockup)
(04) Braking (lockup unknown)
(05) Releasing brakes
(06) Steering left
(07) Steering right
(08) Braking and steering left
(09) Braking and steering right
(10) Accelerating
(11) Accelerating and steering left
(12) Accelerating and steering right
(97) No driver present
(98) Other action (specify):

99

(99) Unknown

15. Accident Type

Applicable codes may be found on the
back of page two of this field form(00) No impact
Code the number of the diagram that
best describes the accident circumstance
(98) Other accident type (specify):

68

(99) Unknown

**** SKIP TO VARIABLE GV37 IF GV07 DOES NOT EQUAL 01-49 ****

CODES FOR BODY TYPE

CDS APPLICABLE VEHICLES

Automobiles

- (01) Convertible (excludes sun-roof, t-bar)
- (02) 2-door sedan, hardtop, coupe
- (03) 3-door/2-door hatchback
- (04) 4-door sedan, hardtop
- (05) 5-door/4-door hatchback
- (06) Station wagon (excluding van and truck based)
- (07) Hatchback, number of doors unknown
- (08) Other automobile type (specify): _____
- (09) Unknown automobile type

Automobile Derivatives

- (10) Auto based pickup (includes El Camino, Caballero, Ranchero, Brat, and Rabbit pickup)
- (11) Auto based panel (cargo station wagon, auto based ambulance/hearse)
- (12) Large limousine - more than four side doors or stretched chassis
- (13) Three-wheel automobile or automobile derivative

Utility Vehicles ($\leq 4,500$ kgs GVWR)

- (14) Compact utility (Jeep CJ-2 - CJ-7, Scrambler, Golden Eagle, Renegade, Laredo, Wrangler, Cherokee [84 and after], Dispatcher, Raider, Bronco II, Bronco [76 and before], Explorer, S-10 Blazer, Geo Tracker, Bravada, S-15 Jimmy, Thing, Pathfinder, Trooper, Trooper II, Rodeo, Amigo, Navajo, 4-Runner, Montero, Samurai, Sidekick, Rocky)
- (15) Large utility (includes Jeep Cherokee [83 and before], Ramcharger, Trailduster, Bronco-fullsize [78 and after], fullsize Blazer, fullsize Jimmy, Landcruiser, Rover, Scout)
- (16) Utility station wagon (Chevy Suburban, GMC Suburban, Travelall, Grand Wagoneer, includes suburban limousine)
- (19) Utility, unknown body type

Van Based Light Trucks ($\leq 4,500$ kgs GVWR)

- (20) Minivan (Chrysler Town and Country, Caravan, Grand Caravan, Voyager, Grand Voyager, Mini-Ram, Dodge/Plymouth Vista, Aerostar, Villager, Lumina APV, Trans Sport, Silhouette, Astro, Safari, Toyota Van, Toyota Minivan, Previa, Nissan Minivan, Quest, Mitsubishi Minivan, Vanagon/Camper.)
- (21) Large van (B150-B350, Sportsman, Royal, Maxiwagon, Ram, Tradesman, Voyager [83 and before], E150-E350, Econoline, Clubwagon, Chateau, G10-G30, Chevy Van, Beauville, Sport Van, G15-G35, Rally Van, Vandura.)
- (22) Step van or walk-in van ($\leq 4,500$ kgs GVWR)
- (23) Van based motorhome ($\leq 4,500$ kgs GVWR)
- (24) Van based school bus ($\leq 4,500$ kgs GVWR)
- (25) Van based other bus ($\leq 4,500$ kgs GVWR)
- (28) Other van type (Hi-Cube Van, Kary) (specify): _____
- (29) Unknown van type

Light Conventional Trucks (Pickup style cab, $\leq 4,500$ kgs GVWR)

- (30) Compact pickup (D50, Colt P/U, Ram 50, Dakota, Arrow Pickup [foreign], Ranger, Courier, S-10, T-10, LUV, S-15, T-15, Sonoma, Datsun/Nissan Pickup, P'up, Mazda Pickup, Toyota Pickup, Mitsubishi Pickup)
- (31) Large Pickup (Jeep Pickup, Comanche, Ram Pickup, D100-D350, W100-W350, F100-F350, C10-C35, K10-K35, R10-R35, V10-V35, Silverado, Sierra, R100-R500.)

- (32) Pickup with slide-in camper
- (33) Convertible pickup
- (39) Unknown pickup style light conventional truck type

Other Light Trucks ($\leq 4,500$ kgs GVWR)

- (40) Cab chassis based (includes rescue vehicles, light stake, dump, and tow truck)
- (41) Truck based panel
- (42) Light truck based motorhome (chassis mounted)
- (45) Other light conventional truck type
- (48) Unknown light truck type
- (49) Unknown light vehicle type (automobile, utility, van, or light truck)

OTHER VEHICLES

Buses (Excludes Van Based)

- (50) School bus (designed to carry students, not cross country or transit)
- (58) Other bus type (e.g., transit, intercity, bus based motorhome) (specify): _____
- (59) Unknown bus type

Medium/Heavy Trucks ($> 4,500$ kgs GVWR)

- (60) Step van ($> 4,500$ kgs GVWR)
- (61) Single unit straight truck ($4,500$ kgs $<$ GVWR $\leq 8,850$ kgs)
- (62) Single unit straight truck ($8,850$ kgs $<$ GVWR $\leq 12,000$ kgs)
- (63) Single unit straight truck ($> 12,000$ kgs GVWR)
- (64) Single unit straight truck, GVWR unknown
- (65) Medium/heavy truck based motorhome
- (67) Truck-tractor with no cargo trailer
- (68) Truck-tractor pulling one trailer
- (69) Truck-tractor pulling two or more trailers
- (70) Truck-tractor (unknown if pulling trailer)
- (78) Unknown medium/heavy truck type
- (79) Unknown truck type (light/medium/heavy)

Motored Cycles (Does Not Include All-Terrain Vehicles/Cycles)

- (80) Motorcycle
- (81) Moped (motorized bicycle)
- (82) Three-wheel motorcycle or moped
- (88) Other motored cycle (minibike, motorscooter) (specify): _____
- (89) Unknown motored cycle type

Other Vehicles

- (90) ATV (All-Terrain Vehicle) and ATC (All-Terrain Cycle)
- (91) Snowmobile
- (92) Farm equipment other than trucks
- (93) Construction equipment other than trucks
- (97) Other vehicle type
- (99) Unknown body type

OCCUPANT RELATED

16. Driver Presence in Vehicle

- (0) Driver not present
(1) Driver present
(9) Unknown

117. Number of Occupants This Vehicle
(00-96) Code actual number of occupants
for this vehicle

- (97) 97 or more
(99) Unknown

01

18. Number of Occupant Forms Submitted

01

VEHICLE WEIGHT ITEMS

19. Vehicle Curb Weight

Code weight to nearest
10 kilograms.

- (045) Less than 450 kilograms
(610) 6,100 kilograms or more
(999) Unknown

1.4 0

3.089 lbs X .4536 = 1.401 kgs

Source: [REDACTED]

20. Vehicle Cargo Weight

Code weight to nearest
10 kilograms.

- (000) Less than 5 kilograms
(450) 4,500 kilograms or more
(999) Unknown

0 0 0

____ lbs X .4536 = ____ kgs

RECONSTRUCTION DATA

21. Towed Trailing Unit

- (0) No towed unit
(1) Yes—towed trailing unit
(9) Unknown

022. Documentation of Trajectory Data
for This Vehicle

- (0) No
(1) Yes

023. Post Collision Condition of Tree or Pole
(For Highest Delta V)

- (0) Not collision (for highest delta V) with
tree or pole
(1) Not damaged
(2) Cracked/sheared
(3) Tilted < 45 degrees
(4) Tilted ≥ 45 degrees
(5) Uprooted tree
(6) Separated pole from base
(7) Pole replaced
(8) Other (specify):

0

(9) Unknown

24. Rollover

- (0) No rollover (no overturning)

0

Rollover (primarily about the longitudinal axis)

- (1) Rollover, 1 quarter turn only
(2) Rollover, 2 quarter turns
(3) Rollover, 3 quarter turns
(4) Rollover, 4 or more quarter turns (specify):

- (5) Rollover--end-over-end (i.e., primarily
about the lateral axis)

- (9) Rollover (overturn), details unknown

OVERRIDE/UNDERRIDE (THIS VEHICLE)

25. Front Override/Underride (this Vehicle)

0

26. Rear Override/Underride (this Vehicle)

0

- (0) No override/underride, or
not an end-to-end impact

Override (see specific CDC)

- (1) 1st CDC
(2) 2nd CDC
(3) Other not automated CDC (specify):

Underride (see specific CDC)

- (4) 1st CDC
(5) 2nd CDC
(6) Other not automated CDC (specify):

- (7) Medium/heavy truck or bus override
(9) Unknown

HEADING ANGLE AT IMPACT FOR
HIGHEST DELTA V

Values: (000)-(359) Code actual value
(997) Noncollision
(998) Impact with object
(999) Unknown

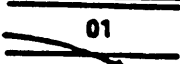

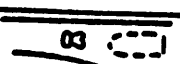


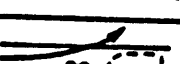
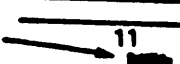

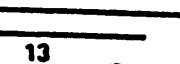
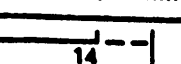



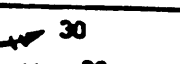
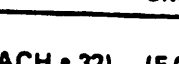


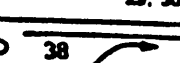
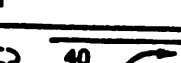
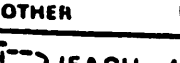
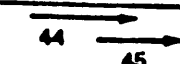
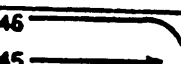
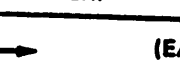
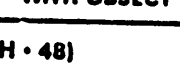








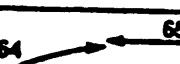

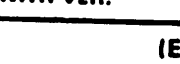
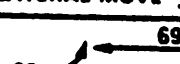
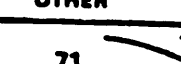
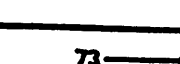

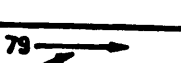


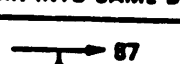
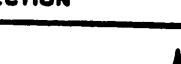
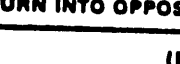
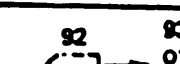


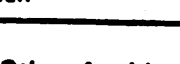

27. Heading Angle For This Vehicle

289

28. Heading Angle For Other Vehicle

194

ACCIDENT TYPES (Includes Intent)

Category	Configuration	ACCIDENT TYPES (Includes Intent)				
I. Single Driver	A. Right Roadside Departure	 01 DRIVE OFF ROAD	 02 CONTROL/ TRACTION LOSS	 03 AVOID COLLISION WITH VEH., PED., ANIM.	04 SPECIFICS OTHER	05 SPECIFICS UNKNOWN
	B. Left Roadside Departure	 06 DRIVE OFF ROAD	 07 CONTROL/ TRACTION LOSS	 08 AVOID COLLISION WITH VEH., PED., ANIM.	09 SPECIFICS OTHER	10 SPECIFICS UNKNOWN
	C. Forward Impact	 11 PARKED VEH.	 12 STA. OBJECT	 13 PEDESTRIAN/ ANIMAL	 14 END DEPARTURE	15 SPECIFICS OTHER 16 SPECIFICS UNKNOWN
II. Same Trafficway Same Direction	D. Rear-End	 20 STOPPED 21, 22, 23	 22 SLOWER 24, 25, 26, 27	 26 DECEL. 28, 29, 30, 31	 30 SPECIFICS OTHER	 31 SPECIFICS UNKNOWN
	E. Forward Impact	 34 CONTROL/ TRACTION LOSS	 36 CONTROL/ TRACTION LOSS	 38 AVOID COLLISION WITH VEH.	 40 AVOID COLLISION WITH OBJECT	 41 SPECIFICS OTHER (EACH • 42) (EACH • 43) SPECIFICS UNKNOWN
	F. Sideswipe Angle	 44	 45	 46 (EACH • 48) SPECIFICS OTHER	 47 (EACH • 49) SPECIFICS UNKNOWN	
III. Same Trafficway Opposite Direction	G. Head-On	 50 LATERAL MOVE	 51 (EACH • 52) SPECIFICS OTHER	 52 (EACH • 53) SPECIFICS UNKNOWN		
	H. Forward Impact	 54 CONTROL/ TRACTION LOSS	 56 CONTROL/ TRACTION LOSS	 58 AVOID COLLISION WITH VEH.	 60 AVOID COLLISION WITH OBJECT	 61 (EACH • 62) (EACH • 63) SPECIFICS OTHER SPECIFICS UNKNOWN
	I. Sideswipe Angle	 64 LATERAL MOVE	 65 (EACH • 66) SPECIFICS OTHER	 66 (EACH • 67) SPECIFICS UNKNOWN		
IV. Change Trafficway Vehicle Turning	J. Turn Across Path	 68 INITIAL OPPOSITE DIRECTIONS	 70 INITIAL SAME DIRECTIONS	 72 (EACH • 74) (EACH • 75) SPECIFICS OTHER SPECIFICS UNKNOWN		
	K. Turn Into Path	 76 TURN INTO SAME DIRECTION	 78 TURN INTO OPPOSITE DIRECTIONS	 80 (EACH • 84) (EACH • 85) SPECIFICS OTHER SPECIFICS UNKNOWN	 82	
V. Intersecting Paths (Vehicle Damage)	L. Straight Paths	 86 (EACH • 90) SPECIFICS OTHER	 88 (EACH • 91) SPECIFICS UNKNOWN	 89		
VI. Miscellaneous	M. Backing Etc.	 92 BACKING VEH.	 93 OTHER VEH. OR OBJECT	 98 Other Accident Type	 99 Unknown Accident Type	 00 No Impact

37. Police Reported Other Drug Presence

- (0) No other drug(s) present
- (1) Yes [other drug(s) present]
- (7) Not reported
- (8) No driver present
- (9) Unknown

☒

38. Police Reported Drug Evaluation Classification (DEC) Test For Driver

- (0) No DEC process available or given
- (1) DEC process given, results known
- (2) DEC process given, results unknown
- (3) DEC process available, unknown if given
- (8) No driver present

☒

39. Other Drug Specimen Test Type For Driver

- (0) No specimen test given
- (1) Blood test
- (2) Urine test
- (3) Other specimen tests (specify):

- (7) Unspecified specimen test
- (8) No driver present
- (9) Unknown if specimen test given

☒**DRUG EVALUATION CLASSIFICATION**
OTHER DRUGS TEST RESULTS FOR DRIVER

	DEC Test Results	Specimen Test Results
Narcotic Drug	40. <input checked="" type="checkbox"/>	41. <input checked="" type="checkbox"/>
Depressant Drug	42. <input checked="" type="checkbox"/>	43. <input checked="" type="checkbox"/>
Stimulant Drug	44. <input checked="" type="checkbox"/>	45. <input checked="" type="checkbox"/>
Hallucinogen Drug	46. <input checked="" type="checkbox"/>	47. <input checked="" type="checkbox"/>
Cannabinoid Drug	48. <input checked="" type="checkbox"/>	49. <input checked="" type="checkbox"/>
Phencyclidine (PCP)	50. <input checked="" type="checkbox"/>	51. <input checked="" type="checkbox"/>
Inhalant Drug	52. <input checked="" type="checkbox"/>	53. <input checked="" type="checkbox"/>
Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash)	54. <input checked="" type="checkbox"/>	55. <input checked="" type="checkbox"/>

Codes For DEC Test Results

- (0) No DEC test given
- (1) Passed DEC test
- (2) Failed DEC test
- (3) DEC test given—results unknown
- (8) No driver present
- (9) Unknown if DEC test given

Codes for Specimen Test Results

- (0) No specimen test given
- (1) Drug not found in specimen
- (2) Drug found in specimen
- (7) Specimen test given, results unknown or not obtained
- (8) No driver present
- (9) Unknown if specimen test given

CODES FOR ROLLOVER INITIATION OBJECT CONTACTED

- (00) No rollover
- (01-30) — Vehicle Number

Noncollision

- (31) Turn-over — fall-over
- (33) Jackknife

Collision With Fixed Object

- (41) Tree (≤ 10 cm in diameter)
- (42) Tree (> 10 cm in diameter)
- (43) Shrubbery or bush
- (44) Embankment

- (45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post

- (50) Pole or post (≤ 10 cm in diameter)
- (51) Pole or post (> 10 cm but ≤ 30 cm in diameter)
- (52) Pole or post (> 30 cm in diameter)
- (53) Pole or post (diameter unknown)

- (54) Concrete traffic barrier
- (55) Impact attenuator
- (56) Other traffic barrier (includes guardrail)
(specify): _____

- (57) Fence
- (58) Wall
- (59) Building
- (60) Ditch or culvert
- (61) Ground
- (62) Fire hydrant
- (63) Curb
- (64) Bridge
- (68) Other fixed object (specify): _____

- (69) Unknown fixed object _____

Collision with Nonfixed Object

- (71) Motor vehicle not in-transport
- (76) Animal
- (77) Train
- (78) Trailer, disconnected in transport
- (79) Object fell from vehicle in-transport
- (88) Other nonfixed object (specify): _____

- (89) Unknown nonfixed object _____

- (98) Other event (specify): _____

- (99) Unknown event or object _____

OTHER DATA

56. Driver's Zip Code

- (00000) Driver not present
 (00001) Driver not a resident of U.S. or territories
 Code actual 5-digit zip code
 (99999) Unknown

57. Driver's Race/Ethnic Origin

- (0) Driver not present
 (1) White (non-Hispanic)
 (2) Black (non-Hispanic)
 (3) White (Hispanic)
 (4) Black (Hispanic)
 (5) American Indian, Eskimo or Aleut
 (6) Asian or Pacific Islander
 (8) Other (specify):
 (9) Unknown

58. Vehicle Special Use (This Trip)

- (0) No special use
 (1) Taxi
 (2) Vehicle used as school bus
 (3) Vehicle used as other bus
 (4) Military
 (5) Police
 (6) Ambulance
 (7) Fire truck or car
 (8) Other (specify):
 (9) Unknown

61. Rollover Initiation Object Contacted

62. Location on Vehicle Where Initial Principal Tripping Force Is Applied

- (0) No rollover
 (1) Wheels/tires
 (2) Side plane
 (3) End plane
 (4) Undercarriage
 (5) Other location on vehicle (specify):
 (8) Non-contact rollover forces (specify):
 (9) Unknown

63. Direction of Initial Roll

- (0) No rollover
 (1) Roll right - primarily about the longitudinal axis
 (2) Roll left - primarily about the longitudinal axis
 (5) End-over-end (i.e., primarily about the lateral axis)
 (9) Unknown roll direction

PRECRASH DATA

64. Pre-Event Movement (Prior to Recognition of Critical Event)

- (01) Going straight
 (02) Slowing or stopping in traffic lane
 (03) Starting in traffic lane
 (04) Stopped in traffic lane
 (05) Passing or overtaking another vehicle
 (06) Disabled or parked in travel lane
 (07) Leaving a parking position
 (08) Entering a parking position
 (09) Turning right
 (10) Turning left
 (11) Making a U-turn
 (12) Backing up (other than for parking position)
 (13) Negotiating a curve
 (14) Changing lanes
 (15) Merging
 (16) Successful avoidance maneuver to a previous critical event
 (97) Other (specify):
 (98) No driver present
 (99) Unknown

ROLLOVER DATA

If GV07 (Body Type) \neq 1-49, leave GV59-GV63 blank.
 If GV24 (Rollover) = 0, then GV59-GV63 must equal 0.
 If GV24 = 9, then GV59-GV63 must equal 9.

59. Rollover Initiation Type

- (0) No rollover
 (1) Trip-over
 (2) Flip-over
 (3) Turn-over
 (4) Climb-over
 (5) Fall-over
 (6) Bounce-over
 (7) Collision with another vehicle
 (8) Other rollover initiation type specify):
 (9) Unknown rollover initiation type

60. Location of Rollover Initiation

- (0) No rollover
 (1) On roadway
 (2) On shoulder—paved
 (3) On shoulder—unpaved
 (4) On roadside or divided trafficway median
 (9) Unknown

PRECRASH DATA (Continued)

65. Critical Precrash Event LS*This Vehicle Loss of Control Due To:*

- (01) Blow out or flat tire
- (02) Stalled engine
- (03) Disabling vehicle failure (e.g., wheel fell off) (specify): _____
- (04) Non-disabling vehicle problem (e.g., hood flew up) (specify): _____
- (05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): _____
- (06) Traveling too fast for conditions
- (08) Other cause of control loss (specify): _____
- (09) Unknown cause of control loss

This Vehicle Traveling

- (10) Over the lane line on left side of travel lane
- (11) Over the lane line on right side of travel lane
- (12) Off the edge of the road on the left side
- (13) Off the edge of the road on the right side
- (14) End departure
- (15) Turning left at intersection
- (16) Turning right at intersection
- (17) Crossing over (passing through) intersection
- (19) Unknown travel direction

Other Motor Vehicle In Lane

- (50) Stopped
- (51) Traveling in same direction with lower speed (i.e., lower steady speed or decelerating)
- (52) Traveling in same direction with higher speed
- (53) Traveling in opposite direction
- (54) In crossover
- (55) Backing
- (59) Unknown travel direction of other motor vehicle in lane

Other Motor Vehicle Encroaching Into Lane

- (60) From adjacent lane (same direction)—over left lane line
- (61) From adjacent lane (same direction)—over right lane line
- (62) From opposite direction—over left lane line
- (63) From opposite direction—over right lane line
- (64) From parking lane
- (65) From crossing street, turning into same direction
- (66) From crossing street, across path
- (67) From crossing street, turning into opposite direction
- (68) From crossing street, intended path not known
- (70) From driveway, turning into same direction
- (71) From driveway, across path
- (72) From driveway, turning into opposite direction
- (73) From driveway, intended path not known
- (74) From entrance to limited access highway
- (78) Encroachment by other vehicle—details unknown

Pedestrian or Pedalcyclist, or Other Nonmotorist

- (80) Pedestrian in roadway
- (81) Pedestrian approaching roadway
- (82) Pedestrian—unknown location
- (83) Pedalcyclist or other nonmotorist in roadway (specify): _____
- (84) Pedalcyclist or other nonmotorist approaching roadway (specify): _____
- (85) Pedalcyclist or other nonmotorist—unknown location (specify): _____

Object or Animal

- (87) Animal in roadway
- (88) Animal approaching roadway
- (89) Animal—unknown location
- (90) Object in roadway
- (91) Object approaching roadway
- (92) Object—unknown location

(98) Other critical precrash event (specify): _____

(99) Unknown

For Corrective Actions Attempted see variable GV14
(Attempted Avoidance Manuever)66. Precrash Stability After Avoidance Maneuver 9

- (0) No avoidance maneuver
- (1) Tracking
- (2) Skidding longitudinally—rotation less than 30 degrees
- (3) Skidding laterally—clockwise rotation
- (4) Skidding laterally—counterclockwise rotation
- (7) Other vehicle loss-of-control (specify): _____
- (8) No driver present
- (9) Precrash stability unknown

67. Precrash Directional Consequences of Avoidance Maneuver (Corrective Action) 9

- (0) No avoidance maneuver
- (1) Vehicle stayed in travel lane where avoidance maneuver was initiated
- (2) Vehicle stayed on roadway but left travel lane where avoidance maneuver was initiated
- (3) Vehicle stayed on roadway, not known if left travel lane where avoidance maneuver was initiated
- (4) Vehicle departed roadway
- (5) Avoidance maneuver initiated off roadway
- (8) No driver present
- (9) Directional consequences unknown

*** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35 = 0), ***
DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS.

*** IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE ***
THE EXTERIOR VEHICLE, INTERIOR VEHICLE,
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.

NATIONAL CRASHWORTHINESS DATA SYSTEM

VEHICLE IDENTIFICATION

Vehicle Make (specify): CHEVROLET n Vehicle Model (specify): MALIBU

Locate the end of the damage with respect to the vehicle longitudinal center line or bumper corner for end impacts or an undamaged axle for side impacts.

CRUSH PROFILE IN CENTIMETERS

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

Use as many lines/columns as necessary to describe each damage profile.

164

ORIGINAL SPECIFICATIONS WORK SHEET

Wheelbase	<u>1</u> <u>0</u> <u>8</u> <u>1</u>	inches	x 2.54	=	<u>2</u> <u>7</u> <u>6</u>	cm
Overall Length	<u>1</u> <u>9</u> <u>2</u> <u>7</u>	inches	x 2.54	=	<u>4</u> <u>8</u> <u>9</u>	cm
Maximum Width	<u>7</u> <u>1</u> <u>5</u>	inches	x 2.54	=	<u>1</u> <u>8</u> <u>2</u>	cm
Curb Weight	<u>3</u> <u>0</u> <u>8</u> <u>9</u>	pounds	x .4536	=	<u>1</u> <u>4</u> <u>0</u> <u>1</u>	kg
Average Track	— — — . —	inches	x 2.54	=	— — —	cm
Front Overhang	— — — . —	inches	x 2.54	=	— — —	cm
Rear Overhang	— — — . —	inches	x 2.54	=	— — —	cm
Undeformed End Width	— — — . —	inches	x 2.54	=	— — —	cm
Engine Size: cyl./displ.	— — — —	cc	x .001	=	<u>16</u> — —	L
	— — —	CID	x .0164	=	— —	L

VEHICLE DAMAGE SKETCH

TIRE—WHEEL DAMAGE

a. Rotation physically restricted

b. Tire deflated

RF 1
LF 2
RR 2
LR 2RF 2
LF 2
RR 2
LR 2

(1) Yes (2) No (8) NA (9) Unk.

TYPE OF TRANSMISSION

☐ Manual ☐ Automatic

ORIGINAL SPECIFICATIONS

Wheelbase 276 cm
 Overall Length 489 cm
 Maximum Width 182 cm
 Curb Weight 1401 kg
 Average Track _____ cm
 Front Overhang _____ cm
 Rear Overhang _____ cm
 Undeformed End Width _____ cm
 Engine Size: cyl./displ. V6 L

WHEEL STEER ANGLES
(For locked front wheels or displaced rear axles only)

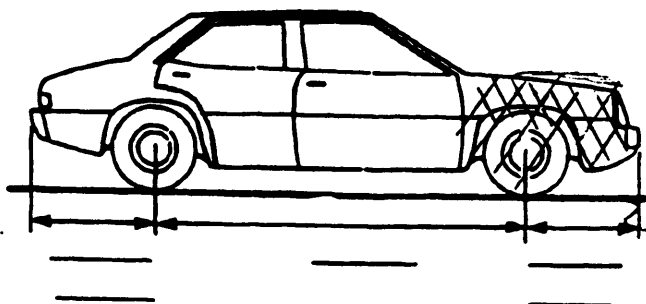
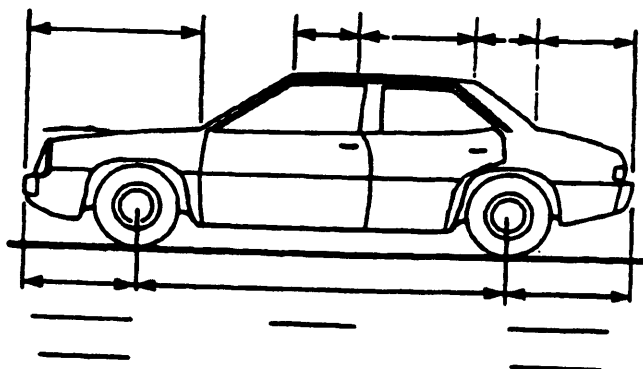
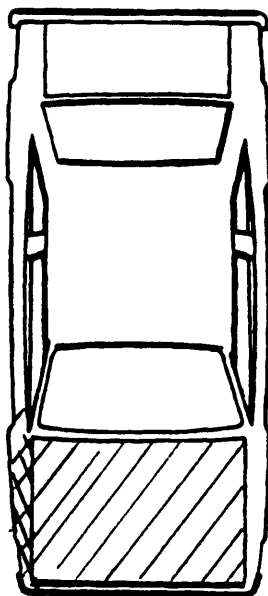
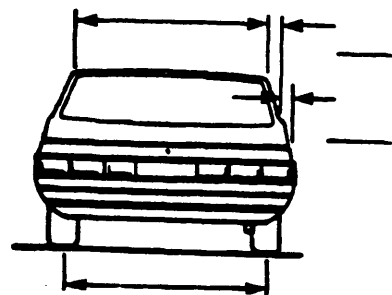
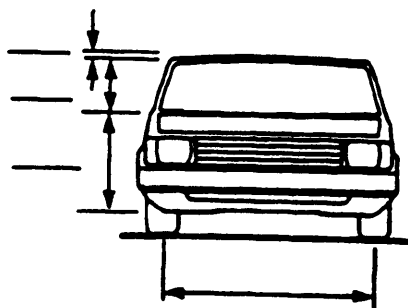
RF \pm 1 ϕ °
 LF \pm _____ °
 RR \pm _____ °
 LR \pm _____ °

Within \pm 5 degrees

DRIVE WHEELS

☐ FWD ☒ RWD ☐ 4WDApproximate Cargo Weight 0 kg

MEASUREMENTS IN CENTIMETERS



DAMAGED
FRONT
STEERING
SUSPENSION

NOTES: Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewalls, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.
 Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

CDC WORKSHEET

CODES FOR OBJECT CONTACTED

(01-30) — Vehicle Number

Noncollision

- (31) Overturn — rollover
 (32) Fire or explosion
 (33) Jackknife
 (34) Other intraunit damage (specify):

- (35) Noncollision injury
 (38) Other noncollision (specify):

- (39) Noncollision — details unknown

Collision With Fixed Object

- (41) Tree (≤ 10 cm in diameter)
 (42) Tree (> 10 cm in diameter)
 (43) Shrubbery or bush
 (44) Embankment

- (45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post

- (50) Pole or post (≤ 10 cm in diameter)
 (51) Pole or post (> 10 cm but ≤ 30 cm in diameter)
 (52) Pole or post (> 30 cm in diameter)
 (53) Pole or post (diameter unknown)

- (54) Concrete traffic barrier
 (55) Impact attenuator
 (56) Other traffic barrier (includes guardrail)
 (specify):

- (57) Fence
 (58) Wall
 (59) Building
 (60) Ditch or culvert
 (61) Ground
 (62) Fire hydrant
 (63) Curb
 (64) Bridge
 (68) Other fixed object (specify):

- (69) Unknown fixed object

Collision with Nonfixed Object

- (71) Motor vehicle not in-transport
 (72) Pedestrian
 (73) Cyclist or cycle
 (74) Other nonmotorist or conveyance

- (75) Vehicle occupant
 (76) Animal
 (77) Train
 (78) Trailer, disconnected in transport
 (79) Object fell from vehicle in-transport
 (88) Other nonfixed object (specify):

- (89) Unknown nonfixed object

- (98) Other event (specify):

- (99) Unknown event or object

DEFORMATION CLASSIFICATION BY EVENT NUMBER

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force (degrees)	Incremental Value of Shift	(3) Deformation Location	(4) Specific Longitudinal or Lateral Location	(5) Specific Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
$\phi 1$	$\phi 1$	$\phi 6 \phi$	$\phi \phi$	\underline{R}	\underline{F}	\underline{E}	\underline{W}	$\phi 2$
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—

COLLISION DEFORMATION CLASSIFICATION

HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Longitudinal or Lateral Location	(5) Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. <u>φ 1</u>	5. <u>φ 1</u>	6. <u>φ 2</u>	7. <u>R</u>	8. <u>F</u>	9. <u>E</u>	10. <u>W</u>	11. <u>φ 2</u>

Second Highest Delta "V"

12. _____	13. _____	14. _____	15. _____	16. _____	17. _____	18. _____	19. _____
-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------

CRUSH PROFILE IN CENTIMETERS

The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN CENTIMETERS.)

HIGHEST DELTA "V"

20. <u>L</u>	21. <u>C₁</u>	<u>C₂</u>	<u>C₃</u>	<u>C₄</u>	<u>C₅</u>	<u>C₆</u>	22. <u>± D</u>
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

Second Highest Delta "V"

23. <u>L</u>	24. <u>C₁</u>	<u>C₂</u>	<u>C₃</u>	<u>C₄</u>	<u>C₅</u>	<u>C₆</u>	25. <u>± D</u>
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

26. Are CDCs Documented but Not Coded on The Automated File?
(0) No
(1) Yes

φ

27. Researcher's Assessment of Vehicle Disposition
(0) Not towed due to vehicle damage
(1) Towed due to vehicle damage
(9) Unknown

1

28. Original Wheelbase 276
Code to the nearest centimeter
(999) Unknown

1 φ 8 . 7 inches X 2.54 = 276 centimeters

29. Is This A Multi-Stage Manufactured Vehicle And/Or A Certified Altered Vehicle?

- (0) No post manufacturer modifications
(1) Yes - post manufacturer modifications (specify): _____

(Include photograph of CERTIFICATION PLACARD in case report)

- (9) Unknown if vehicle is modified

30. Fire Occurrence

- (0) No fire

Yes, fire occurred

- (1) Minor
(2) Major
(9) Unknown

31. Origin of Fire

- (0) No fire
(1) Vehicle exterior (front, side, back, top)
(2) Exhaust system
(3) Fuel tank (and other fuel retention system parts)
(4) Engine compartment
(5) Cargo/trunk compartment
(6) Instrument panel
(7) Passenger compartment area
(8) Other location (specify): _____

- (9) Unknown

32. Type of Fuel Tank-1

33. Type of Fuel Tank-2

- (0) No fuel tank (electrical vehicle)
(1) Metallic
(2) Non-metallic
(9) Unknown

34. Fuel Tank-1 Location

35. Fuel Tank-2 Location

- (0) No fuel tank
(1) Aft of center of the rear wheels (rear axle) centered
(2) Aft of center of the rear wheels (rear axle) left side
(3) Aft of center of the rear wheels (rear axle) right side
(4) Forward of center of the rear wheels (rear axle) centered
(5) Forward of center of the rear wheels (rear axle) left side
(6) Forward of center of the rear wheels (rear axle) right side
(7) Over center of the rear wheels (rear axle)
(8) Other (specify): _____

- (9) Unknown

36. Fuel Tank-1 Filler Cap Location

37. Fuel Tank-2 Filler Cap Location

- (0) No fuel tank
(1) On back plane
(2) Aft of center of the rear wheels (rear axle) on left side plane
(3) Aft of center of the rear wheels (rear axle) on right side plane
(4) Forward of center of the rear wheels (rear axle) on left side plane
(5) Forward of center of the rear wheels (rear axle) on right side plane
(6) Over the center of the rear wheels (rear axle) on left side plane
(7) Over the center of the rear wheels (rear axle) on right side plane
(8) Other (specify): _____
(9) Unknown

38. Fuel Tank-1 Damage

39. Fuel Tank-2 Damage

- (0) No fuel tank
(1) No damage to fuel tank
(2) Deformed, no seam failure
(3) Deformed, with a seam failure
(4) Punctured
(5) Lacerated (ripped)
(6) Abraded (scraped)
(7) Filler neck separation from the fuel tank
(8) Other damage (specify): _____

- (9) Unknown

40. Location of Fuel System-1 Leakage

9

41. Location of Fuel System-2 Leakage

9

(0) No fuel tank

(1) No fuel leakage

Primary Area Of Leakage

(2) Tank

(3) Filler neck

(4) Cap

(5) Lines/pump/filter

(6) Vent/emission recovery

(8) Other (specify): _____

(9) Unknown

42. Fuel Type-1

9

43. Fuel Type-2

9

Single Fuel Type

(00) No fuel tank

(01) Gasoline

(02) Diesel

(03) CNG (Compressed Natural Gas)

(04) LPG (Liquid Petroleum Gas) also known as Propane

(05) LNG (Liquid Natural Gas)

(06) Methanol (M100 or M85)

(07) Ethanol (E100 or E85)

(08) Other (Hydrogen or others) (specify): _____

Electric Powered or Electric/Solar Powered Vehicles

(10) Lead Acid Battery

(11) Nickel-Iron Battery

(12) Nickel-Cadmium Battery

(13) Sodium Metal Chloride Battery

(14) Sodium Sulfur Battery

(18) Other (Specify): _____

(98) Other Hybrid (specify): _____

(99) Unknown fuel type

44. Is This Vehicle Equipped With More Than Two Fuel Tanks?

9

(0) No (one or two tanks only)

Yes - More Than Two Tanks(1) Yes -- no damage to any tank or filler cap and no fuel system leakage(2) Yes -- no damage to any tank or filler cap but there is fuel system leakage (specify leakage location): _____(3) Yes -- damage to an additional tank or filler cap and there is fuel system leakage (specify the following):

Type of tank _____

Tank location _____

Filler cap location _____

Tank damage _____

Location of leakage _____

Type of fuel _____

(9) Unknown if more than two tanks

COMMENTS

*** STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED AND WAS NOT AN AOPS ***
(I.E., GV09 = 0 OR 9 AND GV36 = 0), DO NOT COMPLETE THE INTERIOR VEHICLE FORM.

1. Primary Sampling Unit Number

2. Case Number - Stratum

DSI-94-AB-26

3. Vehicle Number

02

4. Occupant Number

01

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age

Code actual age at time of accident.

(00) Less than one year old (specify by month):

(97) 97 years and older

(99) Unknown

6. Occupant's Sex

(1) Male

(2) Female

(9) Unknown

7. Occupant's Height

Code actual height to the nearest
centimeter.

(999) Unknown

____ inches X 2.54 = ____ centimeters

8. Occupant's Weight

Code actual weight to the nearest
kilogram.

(999) Unknown

____ pounds X .4536 = ____ kilograms

9. Occupant's Role

(1) Driver

(2) Passenger

(9) Unknown

OCCUPANT'S SEATING

10. Occupant's Seat Position

Front Seat

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify):

(15) On or in the lap of another occupant

Second Seat

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify):

(25) On or in the lap of another occupant

Third Seat

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify):

(35) On or in the lap of another occupant

Fourth Seat

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify):

(45) On or in the lap of another occupant

(97) In or on unenclosed area

(98) Other seat (specify):

(99) Unknown

11. Occupant's Posture

(0) Normal posture

Abnormal posture

(1) Kneeling or standing on seat

(2) Lying on or across seat

(3) Kneeling, standing or sitting in front of seat

(4) Sitting sideways or turned to talk with another
occupant or to look out a rear window

(5) Sitting on a console

(6) Lying back in a reclined seat position

(7) Bracing with feet or hands on a surface in front
of seat

(8) Other abnormal posture (specify):

(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

 ϕ

13. Ejection Area

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)
(specify): _____
- (9) Unknown

 ϕ

14. Ejection Medium

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): _____
- (5) Integral structure
- (8) Other medium (specify): _____
- (9) Unknown

 ϕ

15. Medium Status (Immediately Prior To Impact)

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

 ϕ

16. Entrapment

(NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)

- (0) Not entrapped
- (1) Entrapped
- (9) Unknown

 ϕ

RESTRAINT SYSTEM EVALUATION

17. Manual (Active) Belt System Availability 4

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify): _____

(9) Unknown _____

18. Manual (Active) Belt System Use 4

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify): PER

(02) Shoulder belt PAN

(03) Lap belt

(04) Lap and shoulder belt

(05) Belt used—type unknown

(08) Other belt used (specify): _____

(12) Shoulder belt used with child safety seat

(13) Lap belt used with child safety seat

(14) Lap and shoulder belt used with child safety seat

(15) Belt used with child safety seat—type unknown

(18) Other belt used with child safety seat (specify): _____

(99) Unknown if belt used _____

19. Proper Use of Manual (Active) Belts 9

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____

(8) Other improper use of manual belt system (specify): _____

(9) Unknown _____

20. Manual (Active) Belt Failure Modes During Accident 9

- (0) No manual belt used
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): _____

(6) Broken retractor _____

(7) Combination of above (specify): _____

(8) Other manual belt failure (specify): _____

(9) Unknown _____

21. Air Bag System Availability/Function 4

- (0) Not equipped/not available
- (1) Air bag

Non-functional

(2) Air bag disconnected (specify): _____

(3) Air bag not reinstalled _____

(9) Unknown _____

22. Air Bag System Deployment 4

- (0) Not equipped/not available
- (1) Air bag deployed during accident (as a result of impact)
- (2) Air bag deployed inadvertently just prior to accident
- (3) Air bag deployed, accident sequence undetermined
- (4) Nondeployed
- (5) Unknown if deployed
- (6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (9) Unknown

23. Are There Indications of Air Bag System Failure? 4

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify): _____

(9) Unknown _____

Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts

24. Police Reported Restraint Use 4

- (0) None used
- (1) Police did not indicate restraint use
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt used, type not specified
- (6) Child safety seat
- (7) Other or automatic restraint (specify): _____

(8) Restrained, type unknown _____

(9) Police indicated "unknown" _____

HEAD RESTRAINT AND SEAT EVALUATION

25. Head Restraint Type/Damage by Occupant
at This Occupant Position 3

- (0) No head restraints
- (1) Integral—no damage
- (2) Integral—damaged during accident
- (3) Adjustable—no damage
- (4) Adjustable—damaged during accident
- (5) Add-on—no damage
- (6) Add-on—damaged during accident
- (8) Other (specify): _____
- (9) Unknown

26. Seat Type (this Occupant Position) φ 7

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify): _____
- (10) Box mounted seat (i.e., van type)
- (99) Unknown

27. Seat Performance (this Occupant Position) 9

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed (specify): _____
- (4) Seat track/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): _____
- (7) Combination of above (specify): _____
- (8) Other (specify): _____
- (9) Unknown

CHILD SAFETY SEAT

28. Child Safety Seat Make/Model

(000) No child safety seat

Applicable codes are found in your NASS CDS Data Collection, Coding and Editing

(950) Built-in child safety seat

(997) Other make/model (specify):

(998) Unknown make/model

(999) Unknown if child safety seat used

29. Type of Child Safety Seat

(0) No child safety seat

(1) Infant seat

(2) Toddler seat

(3) Convertible seat

(4) Booster seat

(7) Other type child safety seat (specify):

(8) Unknown child safety seat type

(9) Unknown if child safety seat used

30. Child Safety Seat Orientation

(00) No child safety seat

Designed for Rear Facing for This Age/Weight

(01) Rear facing

(02) Forward facing

(08) Other orientation (specify):

(09) Unknown orientation

Designed For Forward Facing for This Age/Weight

(11) Rear facing

(12) Forward facing

(18) Other orientation (specify):

(19) Unknown orientation

Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight

(21) Rear facing

(22) Forward facing

(28) Other orientation (specify):

(29) Unknown orientation

(99) Unknown if child safety seat used

31. Child Safety Seat Harness Usage

32. Child Safety Seat Shield Usage

33. Child Safety Seat Tether Usage

Note: Options below applicable to Variables OA31-OA33.

(00) No child safety seat

Not Designed With Harness/Shield/Tether

(01) After market harness/shield/tether added, not used

(02) After market harness/shield/tether used

(03) Child safety seat used, but no after market harness/shield/tether added

(09) Unknown if harness/shield/tether added or used

Designed With Harness/Shield/Tether

(11) Harness/shield/tether not used

(12) Harness/shield/tether used

(19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

(21) Harness/shield/tether not used

(22) Harness/shield/tether used

(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

INJURY CONSEQUENCES

34. Injury Severity (Police Rating) 1

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

35. Treatment - Mortality 9

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):

Nonfatal

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (8) Treatment - other (specify):

(9) Unknown

36. Type Of Medical Facility (for Initial Treatment) 9

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):

(9) Unknown

37. Hospital Stay 99

- (00) Not Hospitalized

_____ Code the number of days (up through 60) that the occupant stayed in hospital.

- (61) 61 days or more
- (99) Unknown

38. Working Days Lost 99

- _____ Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
 - (61) 61 days or more
 - (62) Fatally injured
 - (97) Not working prior to accident
 - (99) Unknown

STOP - GO TO VARIABLE 44 ON PAGE 7

VARIABLES 39 THROUGH 43 ARE COMPLETED BY THE ZONE CENTER

39. Time to Death φ φ

- _____ Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)
- (00) Not fatal
 - (96) Fatal - ruled disease
 - (99) Unknown

40. 1st Medically Reported Cause of Death φ φ41. 2nd Medically Reported Cause of Death φ φ42. 3rd Medically Reported Cause of Death φ φ

- _____ Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death
- (00) Not fatal or no additional causes
 - (96) Mode of death given but specific injuries are not linked to cause of death. (specify):

(97) Other result (includes fatal ruled disease) (specify):

(99) Unknown

43. Number of Recorded Injuries for This Occupant 97

- _____ Code the actual number of injuries recorded for this occupant.
- (00) No recorded injuries
 - (97) Injured, details unknown
 - (99) Unknown if injured

AUTOMATIC BELT SYSTEM**44. Automatic (Passive) Belt System Availability/Function**

- (0) Not equipped/not available
 (1) 2 point automatic belts
 (2) 3 point automatic belts
 (3) Automatic belts - type unknown

Non-functional

- (4) Automatic belts destroyed or rendered inoperative
 (9) Unknown

45. Automatic (Passive) Belt System Use

- (0) Not equipped/not available/destroyed or rendered inoperative
 (1) Automatic belt in use
 (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):
 (3) Automatic belt use unknown
 (9) Unknown

46. Automatic (Passive) Belt System Type

- (0) Not equipped/not available
 (1) Non-motorized system
 (2) Motorized system
 (9) Unknown

47. Proper Use of Automatic (Passive) Belt System

- (0) Not equipped/not available/not used
 (1) Automatic belt used properly
 (2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly

- (3) Automatic shoulder belt worn under arm
 (4) Automatic shoulder belt worn behind back
 (5) Automatic belt worn around more than one person
 (6) Lap portion of automatic belt worn on abdomen
 (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):
 (8) Other improper use of automatic belt system (specify):
 (9) Unknown

48. Automatic (Passive) Belt Failure Modes During Accident

- (0) Not equipped/not available/not in use
 (1) No automatic belt failure(s)
 (2) Torn webbing (stretched webbing not included)
 (3) Broken buckle or latchplate
 (4) Upper anchorage separated
 (5) Other anchorage separated (specify):

- (6) Broken retractor
 (7) Combination of above (specify):
 (8) Other automatic belt failure (specify):

- (9) Unknown

49. Seat Orientation (this Occupant Position)

- (0) Occupant not seated or no seat
 (1) Forward facing seat
 (2) Rear facing seat
 (3) Side facing seat (inward)
 (4) Side facing seat (outward)
 (8) Other (specify):

- (9) Unknown

Check the Primary Source Used In Determining Belt Use.

- [] Not equipped/not available/destroyed or rendered inoperative
 [] Vehicle inspection
 [X] Official injury data
 [] Driver/occupant interview
 [] Other (specify):

- [] Unknown if belt used

ARE ALL APPLICABLE MEDICAL RECORDS INCLUDED WITH INITIAL SUBMISSION?

NO [X] YES []

UPDATE CANDIDATE?

NO [X] YES []

STOP - VARIABLES 50 THROUGH 53 ARE COMPLETED BY THE ZONE CENTER**BELT USE DETERMINATION****TRAUMA DATA**

50. Glasgow Coma Scale (GCS) Score 9 7
(at Medical Facility)
(00) Not injured
(01) Injured - not treated at medical facility
(02) No GCS Score at medical facility
(03-15) Code the actual value of the initial GCS Score recorded at medical facility.
(97) Injured, details unknown
(99) Unknown if injured

51. Was the Occupant Given Blood? 9
(1) No - blood not given
(2) Yes - blood given
(specify units): _____
(9) Unknown if blood given

52. Arterial Blood Gases (ABG) - HCO_3 9 7
(00) Not injured
(01) Injured, ABGs not measured or reported
(02-50) Code the actual value of the HCO_3
(96) ABGs reported, HCO_3 unknown
(97) Injured, details unknown
(99) Unknown if injured

53. Primary Source of Belt Use Determination 2
(0) Not equipped/not available/destroyed or rendered inoperative
(1) Vehicle inspection
(2) Official injury data
(3) Driver/occupant interview
(8) Other (specify): _____
(9) Unknown if belt used

SUMMARY OF EDCRASH RESULTS

User: NHTSA #7

S/N: [REDACTED]

Version: 4.61

Date: [REDACTED]-1995
DSI-94-AB-20

MESSAGES:

NO MESSAGES

VEHICLE # 1

IMPACT SPEED mph		SPEED CHANGE mph			BASIS FOR RESULTS
FWD	LAT	TOTAL	LONG.	LATERAL	
N/A	N/A	N/A	N/A	N/A	SPINOUT TRAJECTORIES AND CONSERVATION OF LINEAR MOMENTUM
N/A	N/A	N/A	N/A	N/A	SPINOUT TRAJECTORIES AND DAMAGE
		8.3	-8.1	1.4	DAMAGE DATA ONLY

VEHICLE # 2

IMPACT SPEED mph		SPEED CHANGE mph			BASIS FOR RESULTS
FWD	LAT	TOTAL	LONG.	LATERAL	
N/A	N/A	N/A	N/A	N/A	SPINOUT TRAJECTORIES AND CONSERVATION OF LINEAR MOMENTUM
N/A	N/A	N/A	N/A	N/A	SPINOUT TRAJECTORIES AND DAMAGE
		9.7	-4.8	-8.4	DAMAGE DATA ONLY

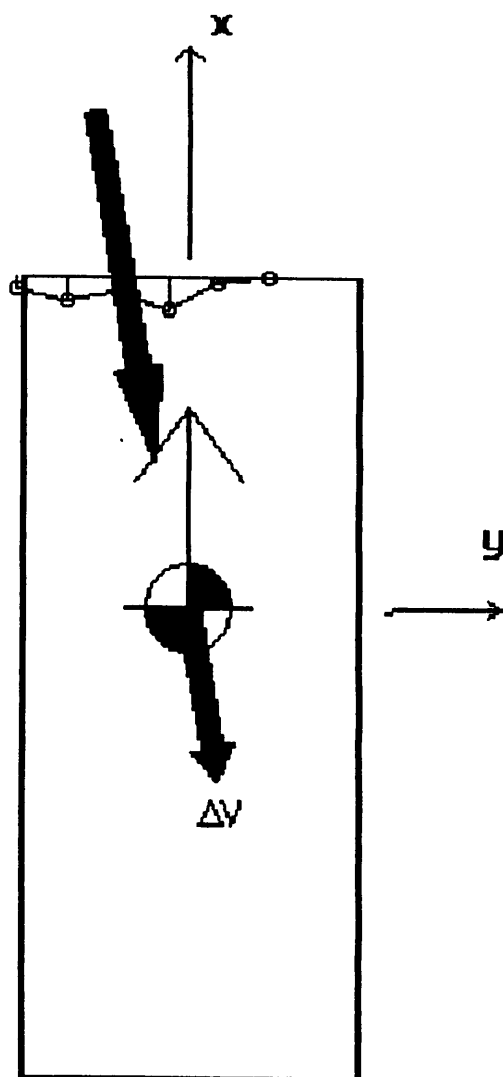
SUMMARY OF DAMAGE DATA
(NOTE: '***' indicates default value)

	Vehicle #1	Vehicle #2	
CLASS / STIFFNESS CATEGORIES	7 / 7	3 / 3	
WEIGHT	3777.0 lb	3223.0 lb	
CDC	12FYEW1	02RFEW2	
DAMAGE WIDTH	60.0 in	56.6 in	**
CRUSH DEPTH 1	2.6 in	0.0 in	**
CRUSH DEPTH 2	4.9 in	3.8 in	**
CRUSH DEPTH 3	3.3 in	3.8 in	**
CRUSH DEPTH 4	7.3 in	7.6 in	**
CRUSH DEPTH 5	1.1 in		
CRUSH DEPTH 6	0.0 in		
DAMAGE MIDPOINT OFFSET	-11.0 in	62.0 in	**
DAMAGE ENERGY	15409.3 ft-lb	8940.9 ft-lb	
MAGNITUDE OF PRINCIPAL FORCE	50816.9 lb	25469.5 lb	
DIRECTION OF PRINCIPAL FORCE	-10.0 deg	60.0 deg	
MOMENT ARM OF PRINCIPAL FORCE	-2.4 in	-43.0 in	
DAMAGE CENTROID	-15.4 in	69.3 in	

DIMENSIONAL, INERTIAL AND CRUSH STIFFNESS PROPERTIES
(NOTE: '***' indicates default value)

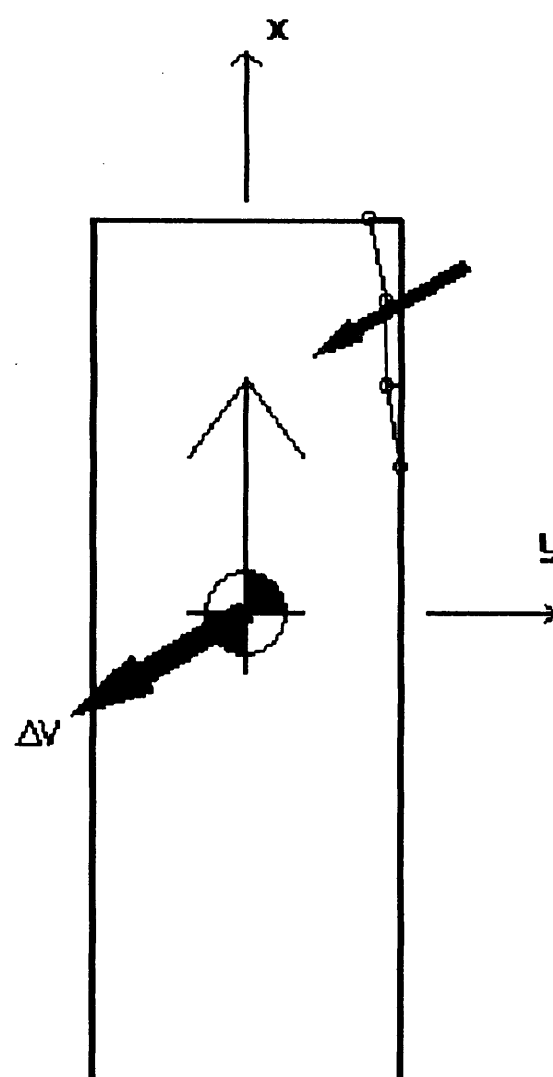
	Vehicle #1		Vehicle #2	
CG TO FRONT AXLE	48.5 in	**	51.3 in	**
CG TO REAR AXLE	68.5 in	**	55.5 in	**
TRACKWIDTH	67.6 in	**	58.9 in	**
YAW MOMENT OF INERTIA	36294.0 lb-sec^2-in	**	27725.8 lb-sec^2-in	**
MASS	9.8 lb-sec^2/in		8.3 lb-sec^2/in	
BODY LENGTH FROM CG TO FRONT	75.6 in	**	89.8 in	**
BODY LENGTH FROM CG TO REAR	-107.0 in	**	-106.4 in	**
BODY OVERALL WIDTH	79.0 in	**	72.6 in	**
CRUSH STIFFNESSES:	A	B	A	B
	lb/in	lb/in^2	lb/in	lb/in^2
	383.0 **	126.0 **	173.3 **	57.1 **

Vehicle No. 1



CDC/PDOF: 12FYEW1 -10.0 deg
Max Impact Force: 50817 lb

Vehicle No. 2



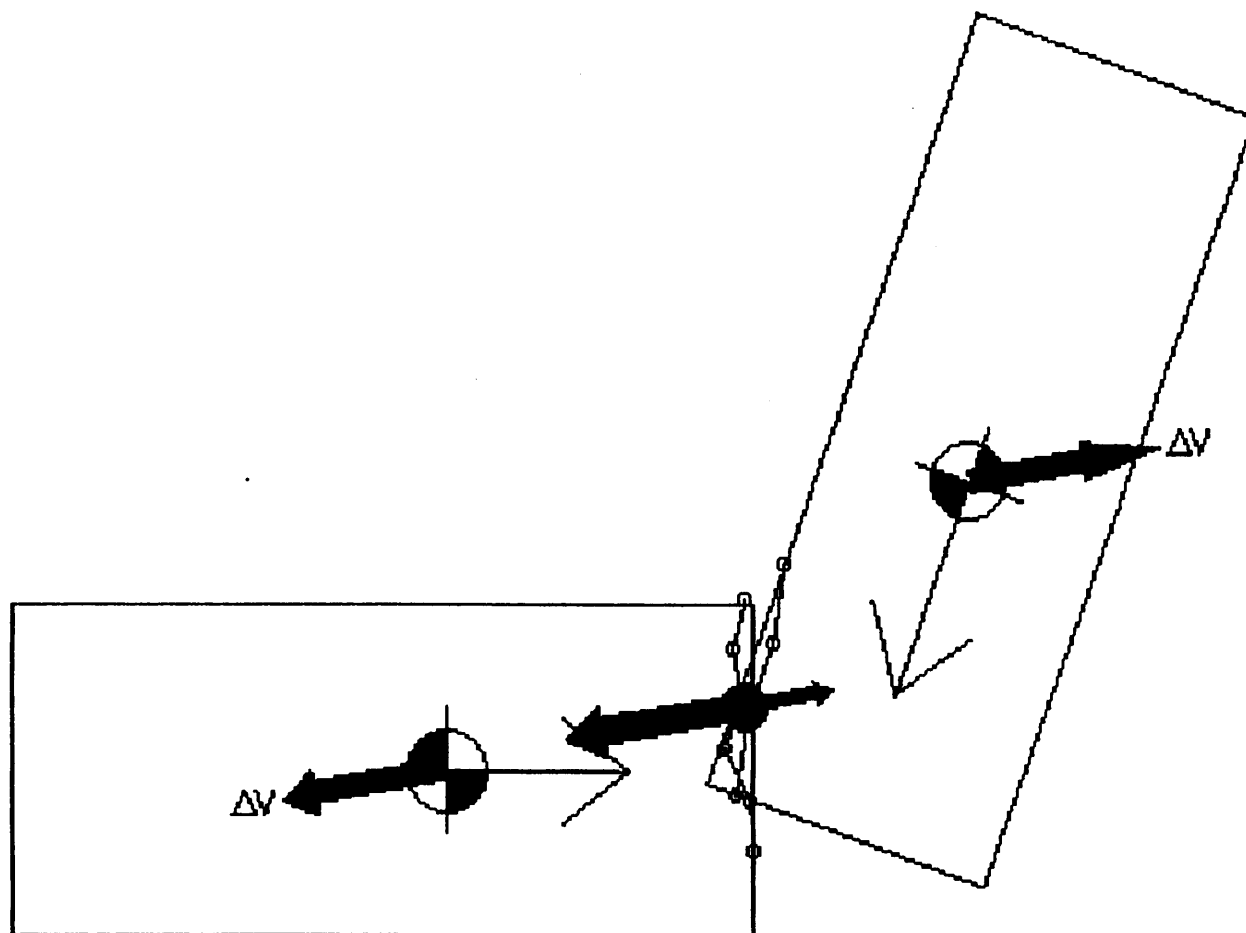
CDC/PDOF: 02RFEW2 60.0 deg
Max Impact Force: 25469 lb



EDCRASH Damage Profiles

	Veh #1	Veh #2
Delta-U (mph):		
X	-8.1	-4.8
Y	1.4	-8.4
Tot	8.3	9.7

Crush Data (in):		
W	60.0	56.6
D	-11.0	62.0
C1	2.6	0.0
C2	4.9	3.8
C3	3.3	3.8
C4	7.3	7.6
C5	1.1	
C6	0.0	

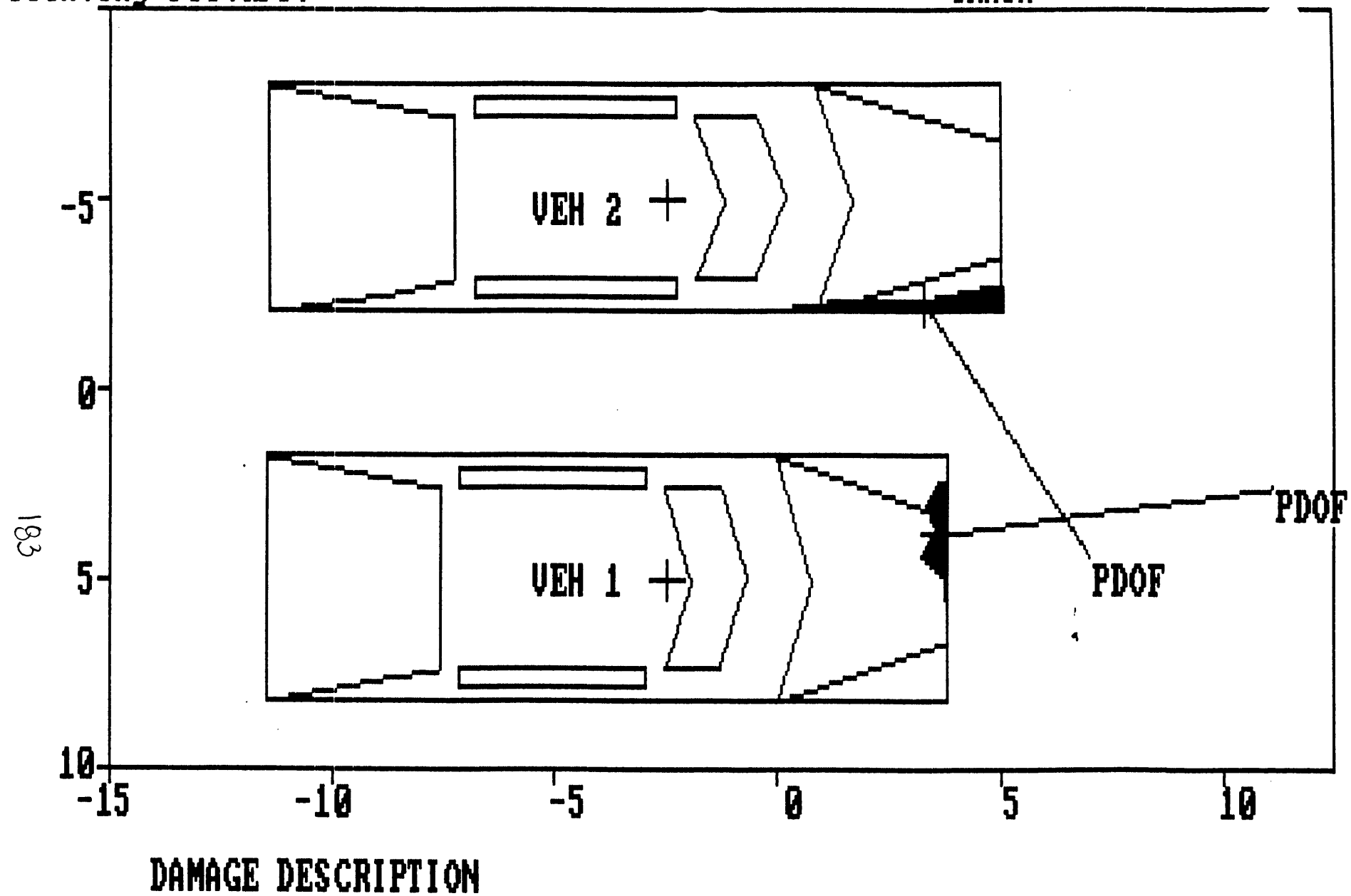


EDCRASH
At Impact

	Veh #1	Veh #2
Delta-U (mph)		
(BASIS: Damage)		
X	-8.1	-4.8
Y	1.4	-8.4
Tot	8.3	9.7
PDOF	-10.0	60.0

UNITS: mph,ft,deg

(NO SCENE DATA)



SUMMARY OF CRASHPC RESULTS (USING SPINOUT)

DSI-94-AB-20

SPEED CHANGE (DAMAGE)		TOTAL(KPH)	LONG.(KPH)	LAT.(KPH)	ANG.(DEG)
	VEH #1	13.3	-13.1	2.3	-10.0
	VEH #2	15.5	-7.8	-13.5	60.0

ENERGY DISSIPATED BY DAMAGE VEH#1: 20880.2 JOULES VEH#2: 12125.5 JOULES

SUMMARY OF DAMAGE DATA VEHICLE # 1

(* INDICATES DEFAULT VALUE)
VEHICLE # 2

TYPE-----CATEGORY 7
STIFFNESS---CATEGORY 7
WEIGHT----- 1713.2 KGS
CDC-----12FYEW1
L----- 152.4 CM.
C1----- 6.6 CM.
C2----- 12.4 CM.
C3----- 8.4 CM.
C4----- 18.5 CM.
C5----- 2.8 CM.
C6----- .0 CM.
D----- -27.9 CM.
RHO----- 1.00 *
ANG----- -10.0 DEG.
D'----- -39.0 CM.

TYPE-----CATEGORY 3
STIFFNESS---CATEGORY 3
WEIGHT----- 1462.0 KGS
CDC-----02RFEW2
L----- .0 CM. *
C1----- .0 CM. *
C2----- .0 CM. *
C3----- .0 CM. *
C4----- .0 CM. *
C5----- .0 CM. *
C6----- .0 CM. *
D----- .0 CM. *
RHO----- 1.00 *
ANG----- 60.0 DEG.
D'----- 176.0 CM.

DIMENSIONS AND INERTIAL PROPERTIES

A1 = 123.2 CM.
B1 = 174.0 CM.
TR1 = 171.7 CM.
I1 = 411965.8 NEWT-SEC**2-CM
M1 = 17.198 NEWT-SEC**2/CM
XF1 = 192.0 CM.
XR1 = -271.8 CM.
YS1 = 100.3 CM.

A2 = 130.3 CM.
B2 = 141.0 CM.
TR2 = 149.6 CM.
I2 = 314710.0 NEWT-SEC**2-CM
M2 = 14.675 NEWT-SEC**2/CM
XF2 = 228.1 CM.
XR2 = -270.3 CM.
YS2 = 92.2 CM.

SUMMARY OF CRASHPC RESULTS (USING SPINOUT)

DSI-94-AB-20

SPEED CHANGE (DAMAGE)	VEH #1	TOTAL(MPH)	LONG.(MPH)	LAT.(MPH)	ANG.(DEG)
	VEH #1	8.2	-8.1	1.4	-10.0
	VEH #2	9.7	-4.8	-8.4	60.0

ENERGY DISSIPATED BY DAMAGE VEH#1: 15398.4 FT-LB. VEH#2: 8942.1 FT-LB.

SUMMARY OF DAMAGE DATA VEHICLE # 1

(* INDICATES DEFAULT VALUE)
VEHICLE # 2

TYPE-----CATEGORY 7
STIFFNESS---CATEGORY 7
WEIGHT----- 3777.0 LBS.
CDC-----12FYEW1
L----- 60.0 IN.
C1----- 2.6 IN.
C2----- 4.9 IN.
C3----- 3.3 IN.
C4----- 7.3 IN.
C5----- 1.1 IN.
C6----- .0 IN.
D----- -11.0 IN.
RHO----- 1.00 *
ANG----- -10.0 DEG.
D'----- -15.4 IN.

TYPE-----CATEGORY 3
STIFFNESS---CATEGORY 3
WEIGHT----- 3223.0 LBS.
CDC-----02RFEW2
L----- .0 IN. *
C1----- .0 IN. *
C2----- .0 IN. *
C3----- .0 IN. *
C4----- .0 IN. *
C5----- .0 IN. *
C6----- .0 IN. *
D----- .0 IN. *
RHO----- 1.00 *
ANG----- 60.0 DEG.
D'----- 69.3 IN.

DIMENSIONS AND INERTIAL PROPERTIES

A1 = 48.5 IN.
B1 = 68.5 IN.
TR1 = 67.6 IN.
I1 = 36463.9 LB-SEC**2-IN
M1 = 9.821 LB-SEC**2/IN
XF1 = 75.6 IN.
XR1 = -107.0 IN.
YS1 = 39.5 IN.

A2 = 51.3 IN.
B2 = 55.5 IN.
TR2 = 58.9 IN.
I2 = 27855.6 LB-SEC**2-IN
M2 = 8.380 LB-SEC**2/IN
XF2 = 89.8 IN.
XR2 = -106.4 IN.
YS2 = 36.3 IN.



CRASHPC PROGRAM SUMMARY

Identifying Title

Primary
Sampling Unit

DSI-94-AB-20

Case No. - Stratum

01

Accident Event
Sequence No.

9 4
Date (month, day, year) of Run

CRASHPC Vehicle Identification

Vehicle 1

1994

DODGE

GRAND CARAVAN (SE)

01

Vehicle 2

1980

CHEVROLET

MALIBU

02

Year

Make

Model

NASS
Veh. No.

GENERAL INFORMATION

VEHICLE 1

Size
Weight 3564 ^{lbs} + 213 + 0 = 3777
Curb Occupant(s) Cargo
CDC 1 2 F Y E W 1
PDOF = 1 0
Stiffness 7

VEHICLE 2

Size
Weight 3089 ^{ASSUMED} + 134 + 0 = 3223
Curb Occupant(s) Cargo
CDC 0 2 R F E W 2
PDOF 0 6 0
Stiffness 3

SCENE INFORMATION

Rest and Impact Positions ☒ No, Go To Damage Information ☐ Yes

VEHICLE 1

Rest Position

X

Y

PSI

Impact Position

X

Y

PSI

Slip Angle

VEHICLE 2

Rest Position

X

Y

PSI

Impact Position

X

Y

PSI

Slip Angle

VEHICLE MOTION

Sustained Contact ☒ No ☐ Yes

VEHICLE 1

Skidding

☐ No ☐ Yes

Skidding Stop Before Rest

☐ No ☐ Yes

End-of-Skidding Position

X

Y

PSI

Curved Path

☐ No ☐ Yes

Point on Path

X

Y

Rotation Direction ☐ None ☐ CW ☐ CCW

Rotation > 360° ☐ No ☐ Yes

VEHICLE 2

Skidding

☐ No ☐ Yes

Skidding Stop Before Rest

☐ No ☐ Yes

End-of-Skidding Position

X

Y

PSI

Curved Path

☐ No ☐ Yes

Point on Path

X

Y

Rotation Direction ☐ None ☐ CW ☐ CCW

Rotation > 360° ☐ No ☐ Yes

FRICTION INFORMATION

Coefficient of Friction _____
 Rolling Resistance Option _____

Vehicle 1 Rolling Resistance

LF _____ RF _____
 LR _____ RR _____

Vehicle 2 Rolling Resistance

LF _____ RF _____
 LR _____ RR _____

TRAJECTORY INFORMATION

Trajectory Data ☒ No ☐ Yes

If No, Go To Damage Information

Vehicle 1 Steer Angles

LF _____ ° RF _____ °
 LR _____ ° RR _____ °

Vehicle 2 Steer Angles

LF _____ ° RF _____ °
 LR _____ ° RR _____ °

Terrain Boundary ☐ No ☐ Yes

First Point

X _____ m Y _____ m

Second Point

X _____ m Y _____ m

Secondary Coefficient of Friction _____

DAMAGE INFORMATION

VEHICLE 1

Damage Length

L 152 cm

Crush Depths

C₁ 447 cm
 C₂ 412 cm
 C₃ 448 cm
 C₄ 419 cm
 C₅ 443 cm
 C₆ 444 cm

Damage Offset

D ± 428 cm

VEHICLE 2

Damage Length

L BASED ON cm

Crush Depths

C₁ CDC cm
 C₂ _____ cm
 C₃ _____ cm
 C₄ _____ cm
 C₅ _____ cm
 C₆ _____ cm

Damage Offset

D ± cm

IF THIS COMMON IMPACT WAS WITH A MOTOR VEHICLE NOT IN TRANSPORT, FILL IN THE INFORMATION BELOW.

Model Year: _____

Make: _____

Model: _____

VIN: _____

The Weight, CDC, Scene Data and Damage Information for this vehicle should be recorded above.

Complete and ATTACH the appropriate vehicle damage sketch and dimensions to the Form.

AIRBAG SUPPLEMENT

1

ACCIDENT SUMMARY

1. Accident Date: *FALL / WEEKDAY*
2. Police Investigated 1
(1) Yes
(2) No
(3) Unknown

Agency:
City: *UTAH*
County:
3. General Locality 2
(1) Freeway, Limited Access
(2) Urban (City)
(3) Urban-Rural (mixed)
(4) Rural, Fields
4. Configuration (First Harm) 4
(0) Struck Object or Ped
(1) Rear-End
(2) Head-On
(3) Rear-to-Rear
(4) Angle
(5) Sideswipe-Same Direction
(6) Sideswipe-Opposite Dir.
(7) Noncollision
(8) Nonimpact Deployment
(9) Unknown
5. Fire Involved 0
(0) None
(1) Airbag Vehicle
(2) Other Vehicle
(3) Both Vehicles
(9) Unknown
6. Vehicles Involved 2
7. Persons Involved 4
8. Injured Persons 3
9. Maximum AIS in Accident 3

AIRBAG VEHICLE INSPECTION

10. Date Vehicle Inspected: *N/A*
11. Reason Vehicle Not Inspected 1
(0) Not Required
(1) Inspection Completed
(2) Cannot be Located
(3) Repaired or Destroyed
(5) Refusal or Impounded
(7) Other:
12. Impact Data Obtained 4
(0) No Data Obtained
(1) CDC Only
(2) Crush Profile Only
(3) Trajectory Data Only
(4) CDC and Crush Profile
(5) CDC and Trajectory
(6) Crush and Trajectory
(7) CDC, Crush, and Trajectory
13. Basis of Delta-V 1
(0) Not Computed (Unknown why)
(1) CRASH - Damage Only
(2) CRASH - Damage + Traj
(3) OLDMISS
(4) POLES
(5) Unknown Basis
(6) One Vehicle Beyond Scope
(7) Collision Beyond Scope
(8) Insufficient Data

VEHICLE HISTORY

14. Prior Impacts for AB Vehicle? 2
(1) Yes
(2) No
(9) Unknown
15. Has Any Prior Maintenance or Service Been Performed on System 2
(1) Yes
(2) No
(9) Unknown

Describe:

AIRBAG SUPPLEMENT

2

AIRBAG VEHICLE

Fleet: *NONE*

VIN: *1B4GH4435RX****

Mileage: *8,839 km (5,493 mi)*

SYSTEM READINESS LAMP

16. Pre-Impact Lamp Condition 9
(1) Functioning/Proved Out
(2) Inoperative
(9) Unknown
17. Driver's Report of Pre-Impact Flashing 9
(00) No Flashing Reported
(01) Continuous Flashing
(02) _____
Number of Flashes: _____
(11)
(12) Constant Light
(19) Flashing, Unknown Number
(88) Not Applicable, System Removed
(99) Unknown
18. Period of Pre-Impact Flashing 9
(0) No Flashing
(1) Same Day as Impact
(2) Prior Day
(3) Prior Two Days
(4) Prior Week
(5) Prior Month
(6) Over One Month
(9) Unknown
19. Post-Impact Lamp Condition 9
(1) Functioning/Proved Out
(2) Inoperative
(9) Unknown
20. Post-Impact Flashing 9
(00) No Flashing Reported
(01) Continuous Flashing
(02) _____
Number of Flashes: _____
(11)
(12) Constant Light
(19) Flashing, Unknown Number
(88) Not Applicable, System Removed
(99) Unknown

21. Airbag Vehicle First Harmful Event 13
(01) Fire or explosion
(02) Immersion
(03) Gas Inhalation
(04) Fell from vehicle
(05) Injured in vehicle
(06) Other noncollision (specify):
(07) Overturn
(08) Jackknife
COLLISION WITH:
(09) Pedestrian
(10) Pedalcyclist
(11) Railway train
(12) Animal
(13) Motor vehicle in transport
(same roadway)
(14) Motor vehicle in transport
(other roadway)
(15) Parked motor vehicle
(16) Other type nonmotorist (specify):
(17) Thrown or falling object
(18) Boulder
COLLISION WITH FIXED OBJECT
(20) Building
(21) Impact attenuator/crash cushion
(22) Bridge pier or abutment
(23) Bridge parapet end
(24) Bridge rail
(25) Guardrail
(26) Concrete traffic barrier
(27) Median barrier
(28) Other longitudinal barrier (specify):
(29) Highway/traffic sign post
(30) Overhead sign support
(31) Luminaire/light support
(32) Utility pole
(33) Other post, pole, or support
(34) Culvert
(35) Curb
(36) Ditch
(37) Embankment-earth
(38) Embankment-rock, stone, or concrete
(39) Fence
(40) Wall
(41) Fire hydrant
(42) Shrubbery
(43) Tree
(44) Other fixed object (specify):
(45) Pavement surface irregularity
(99) Unknown

AIRBAG SUPPLEMENT

3

AIRBAG VEHICLE IMPACT SUMMARY

22. Vehicle Role 1
- (0) Noncollision
 - (1) Striking unit
 - (2) Struck unit
 - (3) Both striking and struck
 - (9) Unknown

23. Manner of Leaving Scene 2
- (1) Driven
 - (2) Towed-due to damage
 - (3) Towed-not for damage
 - (4) Towed-details unknown
 - (5) Abandoned
 - (9) Unknown

24. Number of Impact Events 1
- (8) 8 or more
 - (9) Unknown

25. Rollover ϕ
- (0) No rollover
 - (1) First event
 - (2) Subsequent event
 - (3) Yes, Unknown event
 - (9) Unknown

26. Override/Underride 3
- (0) No override/underride
 - (1) Override - 1st CDC
 - (2) Override - Other CDC
 - (3) Underride - 1st CDC
 - (4) Underride - Other CDC
 - (9) Unknown

AIRBAG VEHICLE DAMAGE

CODES: (1) Yes, damaged
(2) No damage
(9) Unknown

27. Left Front Fender Damage 1

28. Right Front Fender Damage 2

29. Center Top of Grille Damage 1

FRONT BUMPER E.A.D. STATUS

30. Left 5

31. Right 5

- (1) Normal
- (2) Extended
- (3) Partial Compression
- (4) Complete Compression
- (5) Not Applicable
- (9) Unknown

FIRST AIRBAG VEHICLE IMPACT:

32. Configuration 4
- (0) Struck Object or Ped
 - (1) Rear-End
 - (2) Head-On
 - (3) Rear-to-Rear
 - (4) Angle
 - (5) Sideswipe-Same Direction
 - (6) Sideswipe-Opposite Dir.
 - (7) Noncollision
 - (8) Nonimpact Deployment
 - (9) Unknown

33. CDC: 12FYEW1

34. Object Contacted: 1980 CHEVROLET MALIBU

PRIMARY/DEPLOYMENT IMPACT:

35. Event Number 1

36. Total Delta-V 13 KPH

37. Longitudinal Delta-V -13 KPH

38. Configuration 4
See 32 above for codes

39. CDC: 12FYEW1

40. Object Contacted: 1980 CHEVROLET MALIBU

AIRBAG SUPPLEMENT

4

AIRBAG SYSTEM DAMAGE

CODES: (1) Yes, Damaged
(2) No, Intact
(3) Not Applicable
(9) Unknown

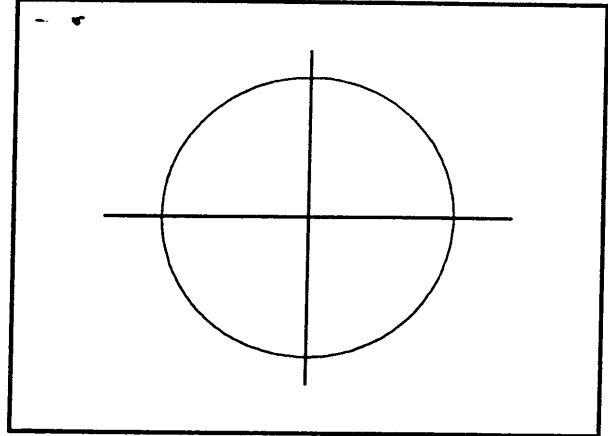
- | | |
|--|--|
| 41. Airbag Module | <div style="border: 1px solid black; padding: 2px; display: inline-block;">2</div> |
| 42. Left Front Sensor | <div style="border: 1px solid black; padding: 2px; display: inline-block;">9</div> |
| 43. Center Front Sensor | <div style="border: 1px solid black; padding: 2px; display: inline-block;">9</div> |
| 44. Right Front Sensor | <div style="border: 1px solid black; padding: 2px; display: inline-block;">9</div> |
| 45. Rear Cowl Sensor | <div style="border: 1px solid black; padding: 2px; display: inline-block;">3</div> |
| 46. Diagnostic Module | <div style="border: 1px solid black; padding: 2px; display: inline-block;">2</div> |
| 47. Wiring | <div style="border: 1px solid black; padding: 2px; display: inline-block;">2</div> |
| 48. Knee Diverter | <div style="border: 1px solid black; padding: 2px; display: inline-block;">2</div> |
| 49. Indication of disconnected or loose electrical connectors | <div style="border: 1px solid black; padding: 2px; display: inline-block;">2</div> |
| 50. Condition of Deployed Bag
(1) Bag intact
(2) Split or torn
(3) Cut by object in impact
(4) Cut after accident
(5) Other
(8) NA (not deployed)
(9) Unknown | <div style="border: 1px solid black; padding: 2px; display: inline-block;">1</div> |

DESCRIBE SYSTEM AND BAG DAMAGE:

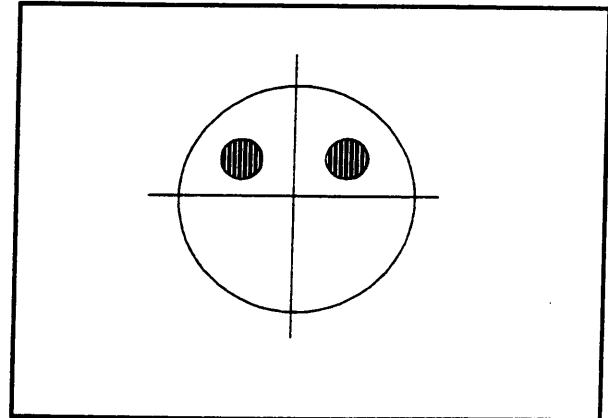
NONE

NOTE DAMAGE AND CONTACT MARKS ON AIRBAG DIAGRAMS BELOW:

FRONT



BACK



AIRBAG SUPPLEMENT

5

OCCUPANTS OF AIRBAG CAR

51. Number of Occupants in Vehicle

3

MAXIMUM AIS BY BODY REGION

REGION MAX AIS CONTACT

52. Number of Injured Persons

3

Head/Neck/Face _____

Chest 1 45

53. Maximum AIS in Airbag Vehicle

4

(0) No Injury

(1-6) AIS Severity

(7) Injured, unknown severity

(9) Unknown

Abdomen _____

Legs/Hips _____

Other (Arms) _____

DRIVER

Age: 37

Sex: FEMALE

Driver
Maximum 1 45

EJECTION

Extent: NONE

54. Number of Driver Injuries

1

Portal: _____

55. Source of Best Injury Data

7

(0) Not injured

(1) Autopsy

(2) Hospital Medical Records

(3) Emergency Room only

(4) Private physician, clinic

(5) Lay Coroner Report

(6) EMS Personnel

(7) Interviewee

(8) Police

(9) Unknown

OTHER VEHICLE:

Maximum AIS UNKPrime/Deploy Impact w AB Vehicle
Event Number 01

CDC: 02 RFEW 2

Total Delta V 16 KPH

Make: CHEVROLET

Model Year: 1980

Model: MALIBU

Body Type: 2-DOOR

AIRBAG SUPPLEMENT

6

NOTES:

DRIVER BELT USAGE: (1) Used (2) Not Used (9) Unknown

2

Evidence:

DRIVER POSTURE: Any comments Recorded (1) Yes, (2) No

1

Describe driver's posture and position on seat including specific comments on head, torso, buttocks, legs, and feet. Also note hand and arm position. Did driver brace before crash? Describe: *NORMAL UPRIGHT POSITION*

DRIVER FOREIGN OBJECTS: Comments Recorded (1) Yes, (2) No

2

Was driver wearing contact lenses or eyeglasses? Or holding any foreign object at the time of the impact (packages on lap, pipe, food, bottle, cigarette, etc.)? Did any lenses, objects, or jewelry play any role?:

DRIVER COMMENTS: Comments Recorded (1) Yes, (2) No

1

Was the driver aware that the vehicle was equipped with a supplemental restraint system? Did driver offer any comments on smoke, noise, etc.? Did the driver comment on the airbag as a restraint system? Describe:

COMMENTS ON PERFORMANCE OF AIRBAG?: The driver remembers a smell. She does not remember a noise. She saw the airbag coming at her when it deployed.

The driver of Vehicle 1 feels that the airbag is what struck the right front occupant causing her to override the airbag and strike the windshield. She was further told by the police that if the right front occupant had been belted, she would have been struck very hard by the airbag and seriously injured.

The driver of Vehicle 1 feels that airbags are unsafe and can cause serious injuries. She wants warning labels attached to airbag-equipped vehicles warning occupants of such dangers.

PASSENGER-AIRBAG CONTACT: (1) Yes, (2) No, (9) Unknown

2

Describe:

AIRBAG SUPPLEMENT

7

R/F OCCUPANT

AIRBAG SYSTEM DAMAGE

CODES: (1) Yes, Damaged
(2) No, Intact
(3) Not Applicable
(9) Unknown

56. Airbag Module

2

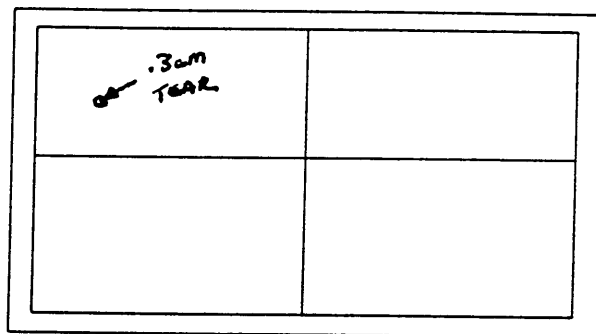
57. Condition of Deployed Bag
(1) Bag intact
(2) Split or torn
(3) Cut by object in impact
(4) Cut after accident
(5) Other
(8) NA (not deployed)
(9) Unknown

3

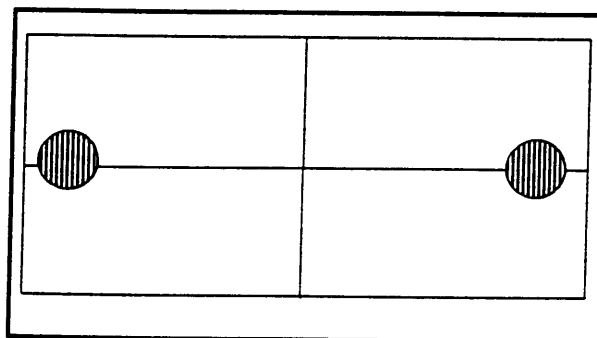
DESCRIBE SYSTEM AND BAG DAMAGE:

NOTE DAMAGE AND CONTACT MARKS ON
AIRBAG DIAGRAMS BELOW:

FRONT



BACK



AIRBAG SUPPLEMENT

8

R/F Occupant

Age: 4

Sex: FEMALE

58. Number of Injuries

10

59. Source of Best Injury Data

3

(0) Not injured

(1) Autopsy

(2) Hospital Medical Records

(3) Emergency Room only

(4) Private physician, clinic

(5) Lay Coroner Report

(6) EMS Personnel

(7) Interviewee

(8) Police

(9) Unknown

MAXIMUM AIS BY BODY REGION

REGION	MAX AIS	CONTACT
--------	---------	---------

Head/Neck/Face	4	50
----------------	---	----

Chest	_____	_____
-------	-------	-------

Abdomen	_____	_____
---------	-------	-------

Legs/Hips	_____	_____
-----------	-------	-------

Other (Arms)	_____	_____
--------------	-------	-------

Occupant Maximum	4	50
---------------------	---	----

EJECTION

Extent: NONE

Portal:

AIRBAG SUPPLEMENT

9

R/F OCCUPANT :

R/F OCCUPANT BELT USAGE: (1) Used (2) Not Used (9) Unknown

2

Evidence:

R/F OCCUPANT POSTURE: Any comments Recorded (1) Yes, (2) No

1

Describe occupant's posture and position on seat including specific comments on head, torso, buttocks, legs, and feet. Also note hand and arm position. Did occupant brace before crash? Describe: *SHE WAS TRYING TO PUT SEAT BELT AT THE TIME OF THE COLLISION.*

R/F OCCUPANT FOREIGN OBJECTS: Comments Recorded (1) Yes, (2) No

2

Was occupant wearing contact lenses or eyeglasses? Or holding any foreign object at the time of the impact (packages on lap, pipe, food, bottle, cigarette, etc.)? Did any lenses, objects, or jewelry play any role?:

R/F OCCUPANT COMMENTS: Comments Recorded (1) Yes, (2) No

2

Was the occupant aware that the vehicle was equipped with a supplemental restraint system? Did occupant offer any comments on smoke, noise, etc.? Did the occupant comment on the airbag as a restraint system? Describe:

DRIVER-AIRBAG CONTACT: (1) Yes, (2) No, (9) Unknown

2

Describe:

DIAGRAM WHAT HAPPENED BELOW.

Reason For No Diagram _____

- 1 Officer not at scene
- 2 Vehicles moved
- 3 Other _____

CASE NUMBER _____

INDICATE DIRECTION OF NORTH



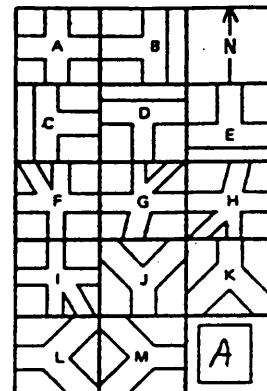
VEHICLE NO. _____ NO. _____

ESTIMATED TRAVEL SPEED

ESTIMATED IMPACT SPEED

POSTED SPEED

ADVISORY SPEED



INDICATE INTERSECTION TYPE

DESCRIBE WHAT HAPPENED
(Refer to Vehicle by Number)

Vehicle #1 was going north bound on _____ and made a left turn in front of vehicle #2. Vehicle #2 was going south bound on _____
Vehicle #1 contributed to the accident by failing to yield right of way.

If Hazardous Materials were involved list the placard number from off the commercial vehicle:

DAMAGE TO PROPERTY
OTHER THAN VEHICLES

Name object and state nature and amount of damage

ESTIMATE

Name and address of
owner of object struck

WITNESSES

Name _____ Address _____ Phone _____
Name _____ Address _____ Phone _____

FIRST AID ADMINISTERED BY

- 1 - Policeman
- 2 - Fireman
- 3 - Ambulance Personnel
- 4 - Paramedics
- 5 - Doctor
- 6 - Private Individual
- 7 - Hospital
- 8 - Helicopter Personnel
- 9 - None Administered
- 0 - Unknown

EMS REPORT NO.

INJURED TAKEN BY

- 1- Ambulance, Private
- 2- Ambulance, Fire
- 3- Paramedics
- 4- Private Vehicle
- 5- Helicopter
- 6- Other

TIME: Amb. Called: _____ Arrived: _____

INJURED TAKEN TO

POLICE ACTIVITY

Month _____ Day _____ Year _____ Date Notified of Accident

Time Notified of Accident

(USE
MILITARY
TIME)

Arrived at Scene

Investigation of accident
Completed at

Source of Information

Officer at scene ☒
Driver No. _____ Contacted station
Other _____

PHOTO(S) TAKEN
YES ☒ NO ☐
VIDEO TAKEN
YES ☐ NO ☒
FIELD DIAGRAM
YES ☒ NO ☐

Name _____ Charge: Negligent Homicide, No insurance
Name _____ Charge: Leaving scene of injury accident, No Driver license

CV. _____ Section Yes _____ No _____ If Yes, Report Number _____

Other action taken _____

PRINT

Patrol

OFFICER'S RANK AND NAME I.D. NO. PATROL DIVISION DEPARTMENT SUPERVISORS APPROVAL DATE OF REPORT

State Law requires that report be forwarded to Dept. of Public Safety within 10 days of the investigation
Driver License Division Financial Responsibility

198

BEST AVAILABLE COPY

DEPARTMENT OF PUBLIC SAFETY WITNESS ACCOUNT OF ACCIDENT

NAME _____ AGE 39 PHONE _____
 ADDRESS _____ CITY _____
 ACCIDENT LOCATION _____
 DATE ACCIDENT OCCURRED _____ TIME _____ A.M./P.M.
 ONE CAR WAS _____ LICENSE NO. _____
 Make & Color
 TRAVELING _____ ESTIMATED SPEED _____
 N E W S
 ONE CAR WAS _____ LICENSE NO. _____
 N E W S
 TRAVELING _____ ESTIMATED SPEED _____
 N E W S

I WAS waiting on the sidewalk
 State the location where you were when you saw the accident

STATEMENT: I was waiting on the sidewalk for my
friend to come home to go walking. I saw
a late model 4 door car with a Hispanic woman
driving past with her front passenger side
wheel fender bent and the tire at a 45 degree
angle. The car was traveling at least 30 mph or
more but something was rubbing and
making a noise. The men building a
house across the street looked up
and heard her tire noise and saw her also.
She was traveling south on [redacted] towards
the freeway. I didn't see or hear her turn off.

(Use other side if more space is needed)

Signature _____

DEPARTMENT OF PUBLIC SAFETY WITNESS ACCOUNT OF ACCIDENT

NAME _____ AGE 39 PHONE _____
 ADDRESS _____ CITY Springfield
 ACCIDENT LOCATION 1st & 11th St
 DATE ACCIDENT OCCURRED _____ TIME _____ (A.M.) / P.M.
 ONE CAR WAS Blue-Grey 4door old make LICENSE NO. ?
 Make & Color Chrysler olds 60s or early 70's State _____
 TRAVELING turning ESTIMATED SPEED _____
N E W S
 ONE CAR WAS Green LICENSE NO. _____
N E W S State _____
 TRAVELING _____ ESTIMATED SPEED _____
N E W S

I WAS _____ at the stop light headed East
 State the location where you were when you saw the accident

STATEMENT: The van was coming from my left south
on 11th. She was 1/2 way through the intersection
when the 4door car that was turning left
hit the gas & turned into the oncoming
green van. It kept driving. I looked in my
rearview mirror to see if anyone was behind
me to back up if necessary. The green van
tried to drive out of traffic. The other car
kept moving west and stopped just past the
satellite dish.

(Use other side if more space is needed)

201

DO NOT SIGN BEFORE READING THE REVERSE SIDE.

BEST AVAILABLE COPY

THE UNDERSIGNED SIGNS THIS DOCUMENT EITHER AS THE PATIENT OR AS THE AGENT OR REPRESENTATIVE OF THE PATIENT AUTHORIZED TO EXECUTE THIS DOCUMENT AND TO ACCEPT AND AGREE TO ITS TERMS ON BEHALF OF THE PATIENT. I HAVE READ THE FOREGOING AND HAVE HAD THE OPPORTUNITY TO ASK ANY QUESTIONS I MAY HAVE ABOUT THE FOREGOING. SUCH QUESTIONS HAVE BEEN ANSWERED TO MY SATISFACTION, AND I UNDERSTAND WHAT I AM AGREEING TO BY SIGNING BELOW. I UNDERSTAND THAT I AM ENTITLED TO REQUEST AND OBTAIN A COPY OF THIS DOCUMENT.

Date Signing 1 19 90 Hour 1 verbal Patient
 Witness 1 X (Patient's Agent or Representative)
 (Relationship to Patient)

ACCOUNT NUMBER		PATIENT TYPE		UNIT RECORD NUMBER		MEDICAL RECORD NUMBER	
E00							
ROOM		CLERK CPY		FLAGS		BABY OR MOTHER	
1990		10		10		10	
00-00-0000		NOT AVAILABLE		MINOR/CHILD		000-00-0000	
FATHER		MOTHER		TEACHER		GRANDFA	
MVA/HEAD INJURIES		MVA/HEAD INJURIES		MVA		02	
2		2		2		2	
NONE		NONE		NONE		NONE	
STREET ADDRESS		STREET ADDRESS		STREET ADDRESS		STREET ADDRESS	
CITY		CITY		CITY		CITY	
STATE		STATE		STATE		STATE	
ZIP		ZIP		ZIP		ZIP	
GROUP		GROUP		GROUP		GROUP	
HIRE DATE		HIRE DATE		HIRE DATE		HIRE DATE	
1/56		1/56		1/56		1/56	
EJG DATES		EJG DATES		EJG DATES		EJG DATES	
AUTH		AUTH		AUTH		AUTH	
LOS		LOS		LOS		LOS	

HEALTH INFORMATION SERVICES

NURSE

RM / BED #

TIME OF
REGISTDAY OF
THE WEEK

S M T W H F S

ACT

UNIT
NO.

IN

0000000000

1990

AGE 004Y

SEX F

PVT
PHYS

0003

REF.
PHY.PT
PHONE

MVA/HEAD INJURIES

RESP
PARTYPREV. REG.
DATETETANUS CURRENT ☐ YES ☐ NO
STATUSCURRENT
INDICATIONSQUAL
ITY

00

05

00

WT.

LMP

MVA - RESTRAINED
MOTORCYCLE - HELMET
REPORTABLE INJURY☐ YES ☐ NO
☐ YES ☐ NO
☐ YES ☐ NOMODE OF ☒ Rescue/Amb. ☐ Wheelchair
ARRIVAL ☐ Ambulatory ☐ Air ☐ Carried

REPORTED TO: DATE TIME

F MO
ASSESSMENT

PHYSICIAN'S REPORT

TIME OF RN
INITIAL ASSESSMENT

NURSES'S REPORT

ACUITY

Placed Paramedic - MVA
CPR - being performed
Monitor - Agonal Rhyth
ETT placed - 27
Pt. intubated
0835 CPR stopped No Rhyth
Social worker called - on

Social Worker notes
Brent responded to call, we
worked at hospital and made
services available for our follow-up
insurance might need.

VIEWED

DICTATED

PHYSICIAN'S ORDERS

TIME

PHYSICIAN'S ORDERS

☐ Chest ☐ C-Spine ☐ Flat Plate/Upright (ABD) ☐ CT ☐ HEAD
☐ ABG ☐ Amylase ☐ Chem. Profile ☐ CBC ☐ CPK ☐ ABD
☐ Glucose ☐ UA ☐ Culture ☐ Lytes ☐ Cardiac Enzymes
☐

OSIS

MVA
Massive head injuries
DOA

DE

DISCHARGE INSTRUCTIONS

TIME BP P R T SaO₂ O₂ %

DISCHARGE INSTRUCTION SHEET

Return to
Work/School

TIME MEDICATION / DOSE ROUTE/SITE PT. RESPONSE INIT

AN
URE X

IV FLUID/AMT MEDICATION ADDED

RATE/HR

SIZE

SITE

STARTED BY

Time Dc'd Amt Infused

Dc'd By

RE/
E XSIGNATURE/
TITLE X☐ SEE ADDENDUM
NURSE'S NOTES

TIME:

CHIEF COMPLAINT: Motor vehicle accident with head injury.

HISTORY: This 4-year-old female was the unrestrained front seat passenger of a vehicle which was involved in a collision. The airbag was deployed, but the patient apparently was not stopped by the airbag. When the paramedics arrived, they found the child on the lawn of a nearby fast food restaurant receiving CPR. They noted that as the air was blown into the mouth, that blood would gurgle out of the ears. They detected no pulse or respiratory effort. Because there was some cardiac electrical activity, they continued CPR and brought the patient immediately to the hospital. In the car with her was the mother and older sister. The mother has a mild chest injury. The other child is not injured.

PAST MEDICAL HISTORY: Unknown.

MEDICATIONS: Unknown.

ALLERGIES: Unknown.

PHYSICAL EXAMINATION:

GENERAL:

The child has not respiratory effort or pulse. Blood is coming freely from both ears and from the mouth and nose.

HEAD:

The patient has lacerations scattered over the scalp with the impression of depressed and open skull fracture. There is blood coming from both ear canals. The face has smooth superficial abrasion over the exposed forehead, nose, cheeks, and chin, suggesting very rapid contact with a smooth surface, such as abrasion from the deployment of the airbag. The right pupil is dilated and nonreactive. The left pupil is midposition and nonreactive. Nose has some lacerations immediately on the nostrils. There are two teeth avulsed in the front, with some oral lacerations and a laceration just below the lower lip.

NECK:

There is a band or ecchymosis and marking across the upper neck, suggesting rapid contact with a linear object. There is no obvious step-off deformity or obvious fracture of the neck to my exam.

CHEST:

There are no ecchymoses or abrasions. The ribs are stable.

LUNGS:

Symmetrical breath sounds once intubation has been accomplished.

HEART:

No cardiac activity is heard.

PATIENT: _____
MEDICAL RECORD #: _____
PHYSICIAN: _____
ADMISSION DATE: _____
DATE OF SERVICE: _____
DISCHARGE DATE: _____

ABDOMEN: Not distended. No evidence of injury is noted.
EXTREMITIES: No evidence of injury is seen.

EMERGENCY ROOM COURSE:

We were contacted as the paramedics were en route. I saw the patient in the ambulance and brought her into the emergency department, where intubation was done, and the patient was ventilated and CPR continued while assessment was made.

My impression was that the injuries were likely fatal, but while the cardiac activity continued we would attempt resuscitation. While I was prepping the patient for a cutdown on the leg for IV access, the electrical activity stopped, and the patient's rhythm was asystole. At this point the patient was declared dead.

Social Services was called to assist the family. The pediatrician's office was notified.

DIAGNOSIS: Automobile accident, massive head injuries, dead on arrival.

"I AUTHORIZE MY NAME TO BE AUTOMATICALLY AFFIXED TO THIS REPORT AS SIGNIFYING THAT I DICTATED THIS REPORT."

PATIENT:
MEDICAL RECORD #:
PHYSICIAN:
ADMISSION DATE:
DATE OF SERVICE:
DISCHARGE DATE:

Service Number		District Code		Unit Permit Number		Incident Number		Incident Date	
Incident Street Location		City		State		Zip Code		Location	
Dispatch Date		Incident Reported Time		Dispatch Modified Time		Dispatched Time		Enroute Time	
Arrived At Scene Time		Arrived At Patient Time		Back In Service Time		PM/EMT Number		PM/EMT Number	
Response / Transport		Bodily Fluids Exposure		CPR Information		Safety Equipment Usage		Alcohol/Drug Usage	
To Scene: <input checked="" type="checkbox"/> Lights / Siren <input type="checkbox"/> Silent Run		Exposure: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Was CPR Initiated prior to EMS Arrival? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Safety equipment usage? (Seat belt, helmet, etc.) <input type="checkbox"/> Yes <input type="checkbox"/> No		Suspicion of alcohol/drug use? <input type="checkbox"/> Yes <input type="checkbox"/> No	
From Scene: <input checked="" type="checkbox"/> Lights / Siren <input type="checkbox"/> Silent Run		Types: <u>Blood</u>		By Whom? <input checked="" type="checkbox"/> Citizen <input type="checkbox"/> 1st Responder		Types:		Reason:	
Patient Last Name		M.I.		Responsible Party		Telephone Number		Odometer Readings	
Street Address		Street Address		City		State		Zip Code	
City		State		Zip Code		Primary Insurance Number		Group Insurance Number	
Telephone Number		Social Security Number		Race Code		Medicare Number		Medicaid Number	
Sex		Date of Birth		Age		Current Medications		Allergies	
Chief Complaint		Past Medical History		Narrative		DOA - 10-50 NO SEATBELTS, AIRBAG DEPLOYED BUT DID NOT RESTRAN CHAIR - CPR PRIOR TO ARRIVAL BY WITNESSES - EKG, IV, INTUBATE STABILIZED CRANIUM TRANSPORT TO OCH - CODE 3 - UNABLE TO SAVE			

CRAMS Score Components		GLASGOW COMA Scale		Vitals		Time		Pulse		Blood Pressure		Respiration		Temperature	
Circulation <input type="checkbox"/> 2 Blood Pressure ≥ 100 <input type="checkbox"/> 1 Blood Pressure $\geq 85 < 100$ <input checked="" type="checkbox"/> 0 Blood Pressure < 85 Capillary Refill <input type="checkbox"/> 2 Normal <input type="checkbox"/> 1 Delayed <input checked="" type="checkbox"/> 0 Absent Enter Least Value of the Above Boxes Checked <u>0</u>		Eye Open <input checked="" type="checkbox"/> 1 None <input type="checkbox"/> 2 To Pain <input type="checkbox"/> 3 To Speech <input type="checkbox"/> 4 Spontaneously		Initial											
Respiration <input type="checkbox"/> 2 Rate < 35 <input type="checkbox"/> 1 Rate ≥ 35 <input checked="" type="checkbox"/> 0 Rate = 0 Respiratory Effort <input type="checkbox"/> 2 Normal <input type="checkbox"/> 1 Labored or Shallow <input checked="" type="checkbox"/> 0 Absent Enter Least Value of the Above Boxes Checked <u>0</u>		Verbal Response <input checked="" type="checkbox"/> 1 None <input type="checkbox"/> 2 Incomprehensible <input type="checkbox"/> 3 Inappropriate <input type="checkbox"/> 4 Confused <input type="checkbox"/> 5 Oriented		Repeat											
Abdomen / Thorax <input checked="" type="checkbox"/> 2 Abd. / Thor. Non-Tender <input type="checkbox"/> 1 Abd. / Thor. Tender <input type="checkbox"/> 0 Abd. Rigid or Penetrating Injury Enter Value Box Checked <u>2</u>		Motor Response <input checked="" type="checkbox"/> 1 Flaccid <input type="checkbox"/> 2 Extends to Pain <input type="checkbox"/> 3 Flexes to Pain <input type="checkbox"/> 4 Withdraws <input type="checkbox"/> 5 Localizes Pain <input type="checkbox"/> 6 Obeys Commands		Repeat											
Motor <input type="checkbox"/> 2 Normal, Obeys Command <input type="checkbox"/> 1 Responds Only to Pain, No Posturing <input checked="" type="checkbox"/> 0 Postures or No Response Enter Value Box Checked <u>0</u>		GLASGOW TOTAL <u>3</u>		Repeat											
Speech <input type="checkbox"/> 2 Normal Oriented <input type="checkbox"/> 1 Confused or Inappropriate <input type="checkbox"/> 0 No Speech or Unintelligible Sounds Enter Value Box Checked <u>0</u>		Enter Injury / Illness Codes (Most to Least Significant) 1 <u>201</u> 2 <u> </u> 3 <u> </u> 4 <u> </u> 5 <u> </u> 6 <u> </u>		Repeat											
CRAMS SCORE TOTAL <u>2</u>		Enter Treatment Codes (Most to Least Significant) 1 <u>140</u> 2 <u>260</u> 3 <u>460</u> 4 <u>160</u> 5 <u>180</u> 6 <u>360</u>		Repeat											
				Medical Control Contact <input type="checkbox"/> At Scene <input checked="" type="checkbox"/> In Transit <input type="checkbox"/> Standing Order Medical Control Physician <u> </u> Destination/Transferred To <u> </u> Medical Control Nurse <u> </u> Disposition <u> </u>											
				This is to certify that I am refusing treatment / transport. I have been informed of the risk(s) involved, and hereby release the ambulance service, its attendants, and its affiliates, from all responsibility which may result from this action.											
				Patient <u> </u> Date / Time <u> </u>											
				PM / EMT Completing Form Signature <u> </u> Date / Time <u> </u>											

207

DYNAMIC SCIENCE INCORPORATED

RE:

DATE OF ACCIDENT:

I have received your communication concerning investigation of this accident. I am providing the following information with the understanding that it is not part of any civil litigation or product liability, but is to be used for the advancement of research on airbags.

The abrasions which were present on _____'s face were extremely smooth and covered most of the face from chin to upper forehead. The abrasions actually followed the curved surfaces in a manner which I have never seen caused by collision with a hard object, such as dashboard, floor, or windshield. The combination of distribution of abrasions, with their slightly purplish color, led me to believe that the only way this injury could have occurred is by rapid velocity impact of a deploying on _____'s face. The lacerations on the nostrils, lip, and oral lacerations appeared to be typical bursting-type lacerations caused by blunt impact. No sharp abrasions or lacerations were seen. The mark across the neck was slightly above the level of the Adam's apple. It was approximately 5.0 cm in length, angling very slightly upward at each edge, as it extended across the neck horizontally. The ecchymosis seemed extremely superficial and was very similar in appearance to the color of the facial injury, but without the overlying abrasion of skin. This band of discoloration was about 0.5 cm in width. Although the impression of the paramedics was that the patient had an unstable C-spine fracture, I did not appreciate this as I moved _____'s head. There was no swelling, palpable deformity, or crepitation on the neck at the time of my examination. Pressing on the child's forehead caused a sensation of crepitation with some motion in the area of the temple. In that location was a laceration about 6.0 cm in length running mostly vertically, extending slightly posterior as it went downward. A

couple of other lacerations were present over the frontal skull, but I do not recall their orientation or size clearly at this time. My impression on palpation of the skull was that there were some irregularity extending around in a coronal orientation in the area of the temple extending across the vertex and over towards the other side of the skull, but I did not open the laceration to explore further. I believe the patient also had a laceration posterior to the ear, just above the area of the mastoid process on the left, but no lacerations were found posterior to that area. There was no evidence found of an impact on the rear of the skull.

I am sorry I cannot recall more of the specific injuries. Please contact me if you need further information.

Sincerely,

Skull Injuries

